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THEIR DIFFUSION AND SPATIAL PATTERNS
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**GUATEMALAN COOPERATIVES
THEIR DIFFUSION AND SPATIAL PATTERNS**

By

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ABSTRACT

GUATEMALAN COOPERATIVES: THEIR DIFFUSION AND SPATIAL PATTERNS

By

David W. Howes

The objective of this thesis is to examine the cooperative movement established in Guatemala, Central America. It seeks to determine those factors which have influenced the conception, development and present status of the cooperatives. Furthermore, an attempt is made to determine what effects the cooperative movement has had on the spatial variations of the level of living in Guatemala.

Information collected for all Guatemalan cooperatives included their location, date of organization, number of members, members per 1,000 population for each municipio, the function for which they were organized, and their operational status.

Data were then related to the two major ethnic regions of Guatemala, Indian and Ladino, to determine if regional variations exist. Furthermore, within the Indian departments an association was sought between the varying rates of cooperative membership and, as an indicator of economic conditions, the varying rates of municipio population change.

Certain spatial variations in the cooperative movement were anticipated, specifically the hypotheses expected that there would be: (1) more cooperatives and cooperative members in the Indian departments, (2) a greater frequency of commercial agricultural cooperatives in the Ladino areas, (3) a higher rate of inactive cooperatives in Ladino departments, and (4) higher rates of population growth in those municipios where cooperation is well established, due to anticipated improved economic conditions. The first three hypotheses were substantiated, while the fourth was not. Greater numbers of cooperatives and cooperative members were found in the Indian departments, due primarily to the concentration of outside financial assistance in this region. The communal oriented social structure of the indigenous population also seems to be a contributing factor. As the data indicates, the smaller agricultural cooperatives, large a result of purely local initiatives, also have a bias in favor of the Indian areas.

Commercial crop agricultural cooperatives were found to be more frequent in the Ladino departments. This concentration is attributable to the Hispanic population being more highly educated and having greater interactions within the commercial economy, as well as being closer to Guatemala City, the main center of business activity.

Higher rates of inactivity in the Ladino departments may be attributable to the greater transience and impermanence of Ladino society relative to the indigenous population. Problems that might lead

to cooperative inactivity more likely would arise in the Ladino than the Indian areas. Furthermore, the Ladino emphasis on commercial crop agricultural cooperatives, which are more difficult to successfully develop, is an important factor in the disparity.

Little relationship was found between the local rates of cooperative membership and the differential rates of population growth. The absence of this relationship may indicate that the cooperative movement is still too young to have had a significant impact on local economic conditions, or that changes in a municipio's level of living may not be manifested in its rate of population growth.

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CHAPTER I
INTRODUCTION

The less developed world is today faced with the tremendous task of feeding its population. Severe overpopulation has often accompanied the introduction of modern medicine. As the death rates decreased and the birth rates remained high, the growing populations have meant less and less land available per person. In response to this Malthusian threat, rural peoples throughout the world have reacted in two ways: migration and intensification of agricultural production.

Migration has taken two major forms. Rural-to-urban movements are currently creating urban societies where few formerly existed, while rural-to-rural migrations have brought previously unexploited regions into cultivation.

These movements of people, despite their vast numbers, have not drawn off the surplus population produced in the rural areas. The response of the remaining people has been to intensify the existing agricultural practices. This has been done through decreasing periods of fallow, increasing the cultivation of pastures and steeper slopes and, where possible, the utilization of chemical fertilizers and improved seed varieties. The first two of these measures are only short term solutions and in the long run will ultimately reduce the productive

capacity of the land. Only through the use of commercial fertilizers and improved seed can the productivity of the land be increased and maintained.

A great paradox, however, has developed in the world. The methods of the so-called "Green Revolution", which were supposed to revolutionize agriculture in the poorer countries, have not been widely adopted in these areas. Thus, while agricultural yields per acre in the developed countries have improved greatly in the recent decades, those of the lesser developed world have lagged behind. The problem lies with the diffusion of these western technologies to those small peasant farmers in most need of them. The demand for this physical technology exists but the cultural technology necessary for its implementation does not. Significant problems involving the provision of credit to the large number of peasant cultivators remain before new seed and fertilizers can be introduced. Similarly, the commercial production of specialized crops for distant markets demands existence of adequate marketing facilities. In the developed countries these structural problems have often been eliminated by the farmers themselves through their joint action in cooperative societies. Thus, it seems only natural that small farmers and development organizations would attempt the introduction of this organizational method to overcome the credit and marketing obstacles to agricultural modernization. Some of these attempts at cooperative formation in third world

countries have been successful, where others have not.

The object of this thesis is to examine the successful cooperative movement established in Guatemala, Central America. Specifically, it will attempt to determine those factors which have influenced the conception, development and present status of the cooperatives. Furthermore, an attempt will be made to determine what effects the cooperative movement has had on the spatial variations of the level of living in Guatemala. A brief review of international cooperation and diffusion theory will be undertaken in order to better present the specific hypothesis.

INTERNATIONAL COOPERATION AND DIFFUSION THEORY

Cooperatives

Cooperatives as a social form of economic organization began in Western Europe in the middle of the 19th century. The purpose of these organizations was to join together large segments of the lower classes (both urban and rural) in production, consumption and credit societies which would insulate their members from the exploitative powers of the large society. Cooperatives aim at the elimination of the middlemen, who exist on the labor of others. Cooperative credit restricts the influence of the moneylender, while cooperative stores limit the profits of the retailers and wholesalers. Labor societies and cooperative factories help prevent exploitation by contractors

and capitalists. In cooperatives there is an amalgamation of conflicting interests: the employer is his own employee, the purchaser is his own supplier, the borrower his own lender and the producer his own consumer. Thus, cooperatives seek the vertical integration of economic activity in the hands of the workers, for the purpose of eliminating their exploitation.

As the international cooperative movement has developed and evolved since its foundation, various types of societies have arisen.

All of these cooperatives can be fit into three basic categories:

(1) producers, (2) consumers, and (3) credit cooperatives. Producer cooperatives involve workers joining together to facilitate the production and sale of a certain good. These can be agricultural or industrial and usually involve the joint purchasing of inputs, provision of credit and collective marketing of the finished product. In agriculture the ownership of the means of production is usually private, but in the industrial sector the workers are usually the owners through a share-capital system.

Consumer cooperatives attempt to provide goods to its members at the lowest possible price, through the elimination of wholesalers and retailers. These involve direct purchases from farmers and laborers and direct sales to the members. On the other hand cooperative credit unions attempt to eliminate the evils of high interest rates through the mobilization of member capital for lending to other members.

Cooperatives may also be divided into two additional broad categories: single purpose or multipurpose. A single purpose cooperative is one which has essentially only one function. Examples of this are the credit union and the agricultural marketing cooperative. A multipurpose cooperative is one that has more than one function such as an agricultural cooperative that supplies inputs and credit, and markets the finished product.

Fundamental Principles of Cooperation

In 1963 the International Cooperative Alliance appointed a commission to define the fundamental principles of cooperation in an attempt to guide effective cooperative development. Using the guidelines of the Rochdale Pioneers as their base, the commission considered the following essential to the cooperative practice:

1. Voluntary association and open membership. The commission stated that "Membership of a cooperative society should be voluntary and available without artificial restrictions or any social, political or religious discrimination to all persons who can make use of its services and are willing to accept the responsibilities of membership."¹
2. Democratic control. The commission stated that "Members of societies should enjoy equally the right of voting (one vote - one member) and participation in decisions affecting their societies."²

¹Raghubans Dev Bedl, Theory, History and Practice of Cooperation, Meerut: Loyal Book Depot, 1969, p. 18.

²Ibid., p. 20.

This principle is different than that of the joint stock company where the power lies in the hands of a few people who hold the majority of the shares.

3. Limited interest on share-capital and a patronage dividend. The commission believed that share-capital should be distributed in an equitable manner through:
 - (A) the development of the cooperative,
 - (B) provision of common services, or
 - (C) by distribution to the members in relation to their business with the cooperative.
 Again this is contrary to the joint stock company policy of high returns to share capital.³

4. Promotion of education. Recognizing the importance of education in the development and strengthening of the cooperative movement, the commission placed much importance on the education of members and the general public in the principles and techniques of cooperation.⁴

5. Mutuality. And, finally, in order to strengthen and further develop the movement the commission recommended that "all cooperative organizations in order to best serve the interest of their members and their committees should actively cooperate in every practical way with other cooperatives at national and international levels."⁵

Since its origin these basic principles have served as guiding forces of the world-wide cooperative movement and ensured that societies maintain democratic and open membership. Furthermore, these principles have led to the democratic distribution of wealth

³Ibid., pp. 21-23.

⁴Ibid., p. 23.

⁵Ibid., p. 24.

within the cooperatives and the expansion and strengthening of the movement.

History

Cooperation in Europe arose out of the same impoverishment and hunger which later gave rise to the social revolutions of 1848. There were two origins of the cooperative movement, one in England and the other in Germany. The beginning of the consumer cooperative movement developed in 1844 in Rochdale, England, when a group of factory workers, suffering from exploitation and high store prices, agreed to join together to form a cooperative store. This was the beginning of the British cooperative movement and their principles have become the guidelines of the international cooperative movement. Since then cooperation in Britain has expanded greatly. In 1966 there were 680 Cooperative Retail Consumer's Societies with over 13 million members and over 11% of the total British retail trade.⁶

The first rural credit societies developed in Germany in the late 1840's. Farmers and workers were heavily in debt and exploited by the moneylending classes, and as most of the trade was through the moneylenders, the result was further impoverishment. A bad harvest or other disaster meant they had to borrow money from the money-lender, only to find that the interest was so high that frequently they

⁶Ibid., pp. 88-89

could not repay the capital. The result often was perpetual indebtedness leading to the seizure of the farmers' lands and workers' property. In 1850, the first cooperative credit society was founded by F. W. Raiffeisen in western Germany. Its function was to raise funds from members to be lent to other members, freeing them from moneylenders. Gradually, the rural cooperative concept spread and did much to uplift the masses from poverty, indebtedness and exploitation.

By 1966, there were over 22,000 rural multi-purpose cooperatives in West Germany with a membership of 4,400,000 and an annual turnover of 21 billion Deutsche marks. In the same year there were over 800 urban cooperative credit banks, with more than two million members and a working capital of 16 billion Deutsche marks.⁷

Elsewhere in the developed world, cooperative industries are found in France, Italy, and Yugoslavia. Credit unions and agricultural cooperatives are found throughout North America. Thus, due to the success that cooperatives have had in the western world, it seemed only natural to attempt its introduction into the Third World.

Cooperation in India

The first large scale attempt to introduce cooperation into the lesser developed world came at the beginning of the 20th century in

⁷Ibid., p. 77.

India. In the late 1800's the British government became very concerned with the increasing problem of rural indebtedness which often led to rural discontent and unrest. Large segments of the lower classes were reduced to tenant farmers, landless laborers and debt bondage, while a small moneylending class gained even greater riches. A government-appointed commission to study the problem, recommended the introduction of cooperatives, with the hope that these institutions would be able to aid the poor Indian peasant much in the same manner they had helped the European farmers escape their poverty.

In 1904 the government passed the Cooperative Societies Act, which permitted their legal organization and provided government loans to stimulate their development.⁸ Thus, cooperation in India was introduced and promoted by the government as a method of overcoming rural poverty -- it was not a spontaneous indigenous development as it had been in the western world.

The cooperative movement in India, however, has generally not lived up to its expectations, having been too limited to break the grip of the moneylenders. Furthermore, it has generally not captured the interest and dedication of the Indian people. In the early 1950's the Indian government conducted a comprehensive study of the rural credit system, which revealed that fully 70% of the required agricultural

⁸Eleanor Hough, The Cooperative Movement in India, Calcutta: Oxford University Press, 1966, p. 53.

credit was supplied by money-lender-traders. Despite 50 years of government supported cooperation, the cooperative movement accounted for only 3% of the rural agricultural credit. Of this 3%, the largest portions went to the larger farmers, while the smaller farmers received only a small fraction. Most cooperative societies were found to loan on the security of land, and they tended to reject as noncredit-worthy, those who had limited or no land.⁹

A similar study of the cooperative movement in Kodinar Taluka, Amreli district, Gujarat, India, revealed that only 25% of the rural population has shown an active interest in the cooperative movement and that the major beneficiaries were the large estate owners.¹⁰ Elsewhere in the lesser developed world, the cooperative movement has had similar problems in capturing the dedication of the lower classes. Often the first cooperatives to develop in many Asian, African and Latin American nations were those organized by large and middle-sized farmers for the production of export crops. Coffee, cotton, and cacao cooperatives are notable examples of this early transfer of western organizational technology. It was not until the 1960's that a general awareness of this lack of participation by the lower classes,

⁹The Reserve Bank of India, All India Rural Credit Survey: Report of the Committee of Direction; Vol. 2, The General Report, (Bombay: The Reserve Bank of India, 1954), pp. 523-525.

¹⁰I. C. A. , Research in Cooperation in India - A Review, (I. C. A Regional Office and Education Centre for South East Asia, 1965), p. 33.

motivated changes in cooperative propaganda and organizational efforts. Now cooperative efforts are directed more at the lower segments of rural society and there have been notable achievements in motivating the rural poor. Generally, however, the cooperative movement has failed to achieve the desired increases in rural incomes that its promoters envisioned. These failings raise basic issues in regard to the transfer of this western method of economic and social organization to the lesser developed areas of the world. These include issues of (1) cultural differences between the western and third worlds, (2) the role of state aid, (3) cooperation and politics, and (4) cooperation and non-solvent people.

Issue of Cultural Differences Between the Western and Third Worlds

Perhaps the most important factors in explaining the failure of the cooperative movement in many areas of the lesser developed world are the cultural differences that work against any form of economic development. In Western Europe, cooperatives were the indigenous developments of a comparatively well educated population that possessed a strong work and saving ethic. The result was a people who were aware of the causes of their poverty, with the necessary motivation and knowledge to overcome it.

In the lesser developed areas of the world often this work and saving ethic, so essential for cooperative development and progress,

is absent and people are less motivated to participate in development projects. Furthermore, illiteracy and fatalism are widespread. People often are not aware of the causes of their poverty, nor the methods they can use to overcome it.

Perhaps the best example of these cultural prerequisites for effective cooperative development, is the rapid and effective acceptance of cooperatives by the owners of middle and large-size farms of the lesser developed world. These agriculturalists usually possess attitudes toward education, work and saving which lend themselves to economic development. Thus, an important question to ask is if there are cultural prerequisites for effective cooperative development.

Government Aid and Cooperation

Another issue resulting from the transfer of the cooperative concept to the lesser developed world, is that of government assistance. In Western countries the cooperative movement grew out of the aspirations of the people themselves. In Britain, the movement developed spontaneously, while in others it rose through the aid of non-officials, like Raiffeisen in Germany. The principle of self-help was developed in European countries where people were conscious of the exploiting forces and the methods to overcome them.

In the developing world, however, most cooperative movements have developed through the efforts of the state. People were not con-

scious of the reasons for their poverty let alone the techniques to combat them, thus the necessity of state encouragement.

Always, however, state aid is rationalized as a necessary catalyst for the cooperative movement. Hopefully it will gradually be reduced once cooperation is able to stand on its own feet. Two issues arise from this factor of assistance from the state. First, it is claimed that state aid hinders the development of ethics of self-help, hard work, and thrift, thus defeating the purpose of cooperation. Second, there is an issue of whether these organizations will ever be weaned from the state, or simply become instruments of state policy rather than effective and dynamic local organizations.

The Issue of Cooperation and Politics

Cooperatives developed in Western Europe as an alternative to political power, and were seen as a method of circumventing the stranglehold of the economic elite. Many cooperative movements, however, have seen politics as perhaps a more effective and rapid method of achieving better living conditions for their members. There are, however, two drawbacks to a cooperative movement adopting a "liberal" or "radical" political philosophy in order to more effectively change the social structure of the state involved. First, adoption of certain political philosophies may alienate existing or potential members and thus weaken the development of the movement. Secondly,

the state may decide that a cooperative movement is a threat to the established order and take measures to limit or destroy it. Italy serves as an example. When the fascists took over the government in 1922 they effectively destroyed the Socialist-oriented cooperative movement. Cooperative movements in the lesser developed world today face a similar dilemma whether to act in harmony with the existing social structure or try to act against it. Often, however, their choices are limited due to the dependence on the state for financial resources.

Issue of Cooperation and Non-Solvent People

Finally, there is an issue as to whether cooperatives can significantly improve the living standards of non-solvent people. That is, how can a cooperative improve the living standards of people who have virtually no resources. The poor farmer of Europe of the past century certainly is not comparable to today's peasant of the Third World, who may have only an acre or two of land to support a family of four or five. A 1958 study of the small farmers of Kodinar Taluka, India, illustrates this problem. It revealed "that despite the enviable achievement of cooperation in the region, the weaker sections did become weaker and that was due to inherent defects in their economy, such as factor imbalance, excess of certain assets and labour in relation to land, uneconomic structure of assets and labour rationing."¹¹ Thus,

¹¹ Ibid, p. 30.

it may be economically impossible for a cooperative system to significantly aid the poorest segments of the rural Third World; the resources might simply not exist.

The Diffusion Process

Perhaps the most important factor influencing the success of a cooperative movement is its effective diffusion among the participants of its ethics of hard work, thrift, and mutual assistance. Indeed the entire problem of economic development has, to a large extent, become a problem of diffusion. The technology necessary for adequate economic production to meet material wants exists, but is greatly underutilized. Thus, the problem of economic development, becomes a problem of how to diffuse technology to those lesser developed regions that are in need of it. However, due to the many social, cultural and financial characteristics of the lesser developed world, which actively work to hinder modernization, this diffusion process is proving to be more difficult than developing the initial technology.

An excellent summary of diffusion research literature up to the late 1960's is provided by Everett Rogers in his text, Communication of Innovations. Most of the information in this brief review is taken from this work.

Research on the diffusion of new ideas, techniques or material items is wide and varied, encompassing numerous academic traditions.

The bulk of diffusion literature has come from the field of rural sociology, with other major contributions by anthropology, sociology, education, medical sociology, communications, and marketing. The role of geography in the overall diffusion literature has not been extensive, according to Rogers; as of 1968 geography was represented by seven diffusion publications or .06% of the total literature. Early noteworthy contributions to diffusion by geography began with the work of Thorsten Hagerstrand at Lund University in the early 1950's. Diffusion research among geographers in the United States began in the 1960's, led by Lawrence A. Brown of Ohio State University. These studies are primarily concerned with the simulation of innovation diffusion, and major emphasis is placed upon spatial variables.

Again, according to Rogers, the bulk of diffusion research considers eight main types of information on the diffusion of innovations:

1. Studies of the factors which may affect the rate of adoption of an innovation in a social system.
2. Variables which may result in differential rates of adoption in different social systems.
3. The characteristics of the innovations as they are perceived by potential adopters.
4. Studies of the factors, which explain variations in the degree of innovativeness of various societies and individuals.
5. Efforts at the determination of factors influencing the earliness of knowing about innovations.
6. The role of opinion leadership.
7. The types of communication channels used.
8. The consequences of innovations.

Research has shown that the adoption of an innovation follows a normal bell-shaped curve when plotted over time. Furthermore, adopters of innovations may be classified into one of four categories: (1) Innovators, (2) Early Adopters, (3) Early Majority, and (4) Late Majority.

Rogers, in his review of diffusion literature combines research findings to produce a number of generalizations as to the nature of the diffusion process. The following are those relevant to this thesis.

1. Earlier adopters have more years of education than do later adopters.
2. Earlier adopters are more likely to be literate.
3. Earlier adopters have a higher social status.
4. Earlier adopters have larger sized units of economic production.
5. Earlier adopters are more likely to have a commercial rather than subsistence orientation.
6. Earlier adopters have more specialized operations.
7. Earlier adopters are less dogmatic.
8. Earlier adopters have more favorable attitudes toward change.
9. Earlier adopters are less fatalistic.
10. Earlier adopters have higher levels of achievement motivation.
11. Earlier adopters are more highly integrated with the social system.
12. Earlier adopters are more cosmopolite.
13. Earlier adopters have greater exposure to mass media communication channels.
14. Earlier adopters are more likely to belong to systems with modern rather than traditional norms.
15. The compatibility of a new idea, as perceived by members of a social system,

- is positively related to its rate of adoption.
16. The rate of adoption of collective innovation-decisions is positively related to the degree of power concentration in a system.
 17. Member acceptance of collective innovation-decisions is positively related to member cohesion with the social system.
 18. Earlier adopters have more change agent contact than do later adopters.
 19. The relative advantage of a new idea, as perceived by members of a social system, is positively related to its rate of adoption.

These generalizations form the basic assumptions, upon which the hypotheses of this thesis are based. However, before these hypotheses can be advanced, it is necessary to discuss the above generalizations in the regional context in which they occur.

CHAPTER II

REGIONAL SETTING

Guatemala is the westernmost state of the Central American republics. It stretches across the isthmus from the Pacific Ocean on the south to the Gulf of Honduras on the north. The country is bordered by Mexico to the west and north, Belize to the east and Honduras and El Salvador to the southeast (Figure 1). It has an area of 108,888 square kilometers, excluding Belize.

Physiography

Guatemala is located in the tropics between 14 and 18 degrees North Latitude, but due to the mountainous nature of the country, a wide range of physical environments is found. The area has a distinct wet and dry season, the rainy season extending from May through October as the Intertropical Zone of Convergence moves north and then south over the country. The remainder of the year is generally dry and clear with little rainfall during the low sun season. Physiographically, the country can be divided into three major regions: (1) the Pacific lowlands, (2) the highlands, and (3) the northern lowlands.

Pacific Lowlands

The Pacific lowlands include the coastal plain and piedmont. The

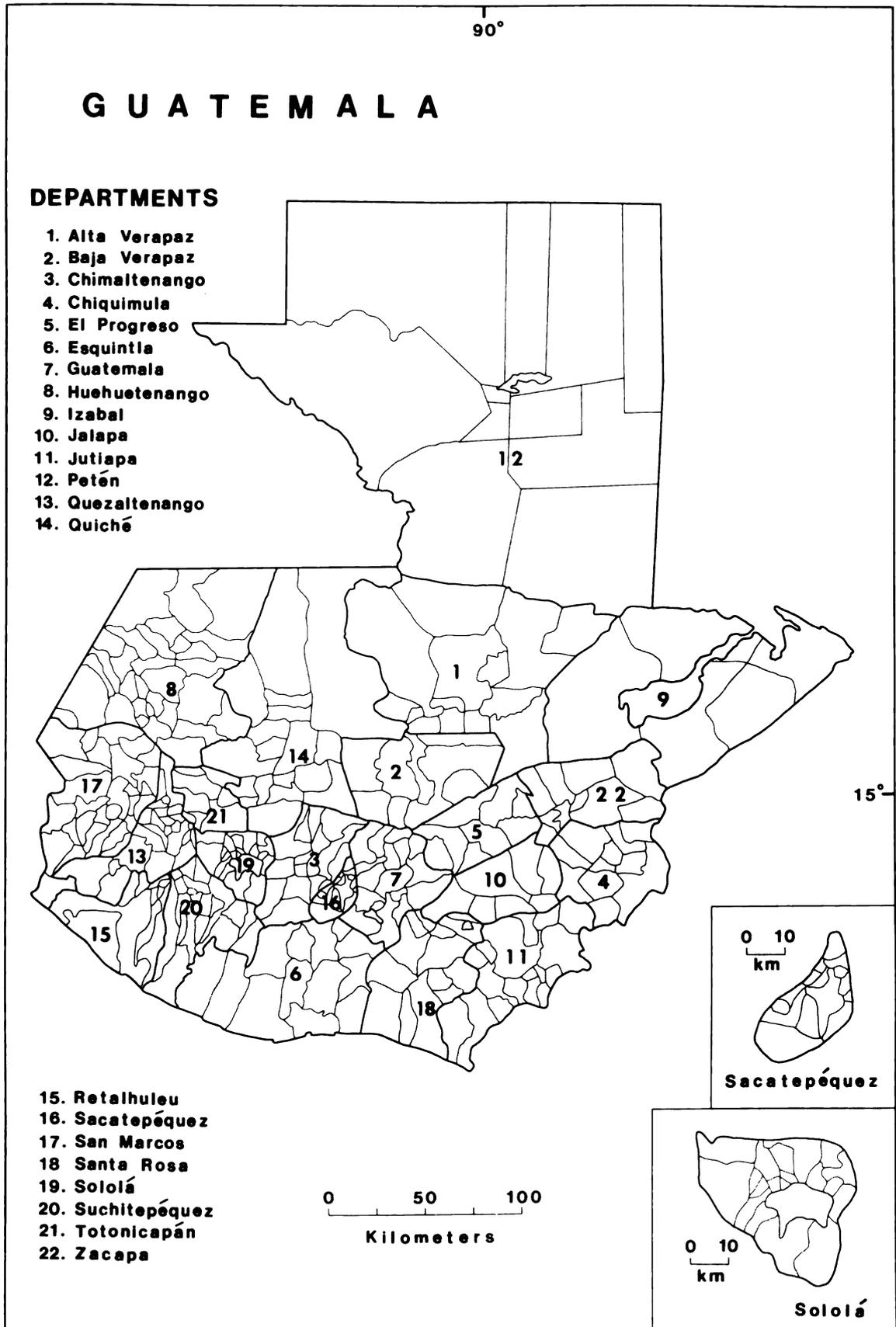


Figure 1

coastal plain stretches inland between 25 and 50 kilometers, and is an area of predominantly savanna vegetation with semideciduous forests along the streams which originate in the highlands. The piedmont is located on the lower mountainous slopes and within the valleys of the Central American volcanic axis. The lowland climate is predominantly tierra caliente with the upper reaches of the piedmont being tierra templada.

The coastal plain is the site of large scale plantation agriculture, engaged in the production of cotton, sugar cane and cattle. In the piedmont are found many of the country's large coffee plantations.

Highlands

The highlands of the country are part of the east-west extending mountain system which runs from Mexico to Honduras, and can be divided into three major subregions: (1) the Sierra Madre (2) the highland basins, and (3) a dissected upland region.

The Sierra Madre is a series of over 20 volcanoes which rise abruptly from the coastal plain. The highest of these is Tajumulco (4,209 meters) located in San Marcos department. These volcanoes generally decrease in altitude as one moves eastward. Many of these peaks are active and the entire highland region has been the site of recent seismic activity.

To the north of this line of volcanoes are several high mountain

basins of varying size and altitude; the largest and most important of these are the Basins of Quezaltenango, Chimaltenango and Guatemala. As with the volcanoes, these highland valleys also generally decrease in altitude as one moves from west to east. Thus, the eastern highlands lie predominately in the tierra templada while the higher western highlands lie in the tierra fria.

To the north of the Sierra Madre and the broad upland basins is a zone of dissected uplifts. The rivers in this region have cut deep valleys into the uplifted sedimentary rocks, leaving flat inter-mont areas. This is perhaps best seen in the Cuchumatanes uplift (Huehuetenango department), which is an extensive remnant plateau between 3,000 and 3,400 meters. Numerous structural valleys are also found in this region, as well as fault-block ranges.

The upland basins contain the vast majority of Guatemala's population. Here also are located the nation's two largest cities, Guatemala and Quezaltenango. The highland basins also contain a dense rural population generally engaged in subsistence agriculture.

Northern Lowlands

The third major physiographic region of Guatemala is the northern lowlands. This consists of the Caribbean coastal lowlands, the broad structural valleys which extend into the dissected section of the highlands and the Petén, an undulating limestone lowland. This hot humid

area of tierra caliente has sufficient moisture to support a rainforest vegetation, interspersed with savanna areas.

The northern lowlands currently are the site of pioneer colonization by Indians and Ladinos leaving the crowded highlands in search of land. However, despite these recent settlement attempts, the northern lowlands remain a largely uninhabited wilderness.

Population

When the Spanish conquistador Pedro de Alvarado penetrated the Guatemalan highlands in the mid 1500's he found a relatively dense area of Indian settlement. The exact population of the highlands at the time of the Spanish conquest is unknown, but it is thought to have exceeded 2,000,000 inhabitants.¹²

In the ensuing three centuries of Spanish rule the population was ravaged by the introduction of European diseases and excessive exploitation by the conquerors. The royal census of 1778 listed the population as 390,146.¹³ Plagues of small pox, influenza and cholera acted as major population controls well into the beginning of the 20th century.

Before World War II the crude death rate was reduced to less than 30 per 1,000 total population, largely through the application of

¹²Nathan L. Whetten, Guatemala, The Land and People, New Haven: Yale University Press, 1961, p. 19.

¹³*Ibid.*, p. 20.

modern immunology and resultant control of periodic plagues. Since World War II, the crude death rate has been halved as modern medicine penetrated the more inaccessible rural areas (Table 1). Throughout this period, however, the crude birth rate has remained high.

TABLE 1
GUATEMALAN VITAL STATISTICS, 1930 - 1970

Years	Infant Mortality	Birth Rate	Death Rate	Growth Rate
1970 - 1973	81.7	43.3	14.5	2.9
1965 - 1969	91.2	44.1	16.4	2.8
1960 - 1964	89.7	48.1	16.8	3.1
1955 - 1959	96.8	49.1	19.9	2.9
1950 - 1954	100.1	51.4	21.4	3.0
1945 - 1949	109.4	50.6	23.8	2.7
1940 - 1944	119.4	47.2	27.8	2.1
1935 - 1939	N. A.	47.7	26.5	2.1
1930 - 1934	N. A.	51.6	26.1	2.5

Source: United Nations, United Nations Demographic Yearbooks, New York: Publishing Service of the United Nations.

1973: pp. 227, 281, 257

1970: pp. 621, 655, 647

1968: pp. 334, 378, 369

1964: pp. 530, 552, 561

1960: pp. 481, 503, 515

1959: p. 207

1957: p. 190

1951: pp. 227, 269

Before World War II it averaged more than 45 live births per 1,000 total population. Presently it is in the mid 40's. Thus, the result of the dramatic decline in the death rate was an increase in the rate of population growth which climbed from slightly more than 2% before the war to the present rate of 3%.

Due to increases in the availability of modern medicine which has further reduced death rates, the nation has experienced rapid population growth in this century. Between 1920 and 1945 the population doubled from 1,272,000 to 2,438,000 and between 1945 and 1970 the population doubled again from 2,438,000 to 5,100,000.¹⁴

Culture

Culturally, Guatemala is a land of two different peoples, each occupying a distinct area of the national territory. According to the 1973 census, it had a population of 5,160,000, of which 44% were Indian and 56% Ladino.¹⁵ The distinction between these two groups is somewhat arbitrary as the term Ladino is a cultural rather than an ethnic classification. The census definition was based on the respondent's view of himself, that is whether a person considered himself to

¹⁴United Nations, United Nations Demographic Yearbooks, New York: Publishing Service of the United Nations, 1973, p. 181; 1960, pp. 132-135.

¹⁵Dirección General de Estadística, VIII Censo de Población, Guatemala: Ministerio de Economía, 1974, p. 5.

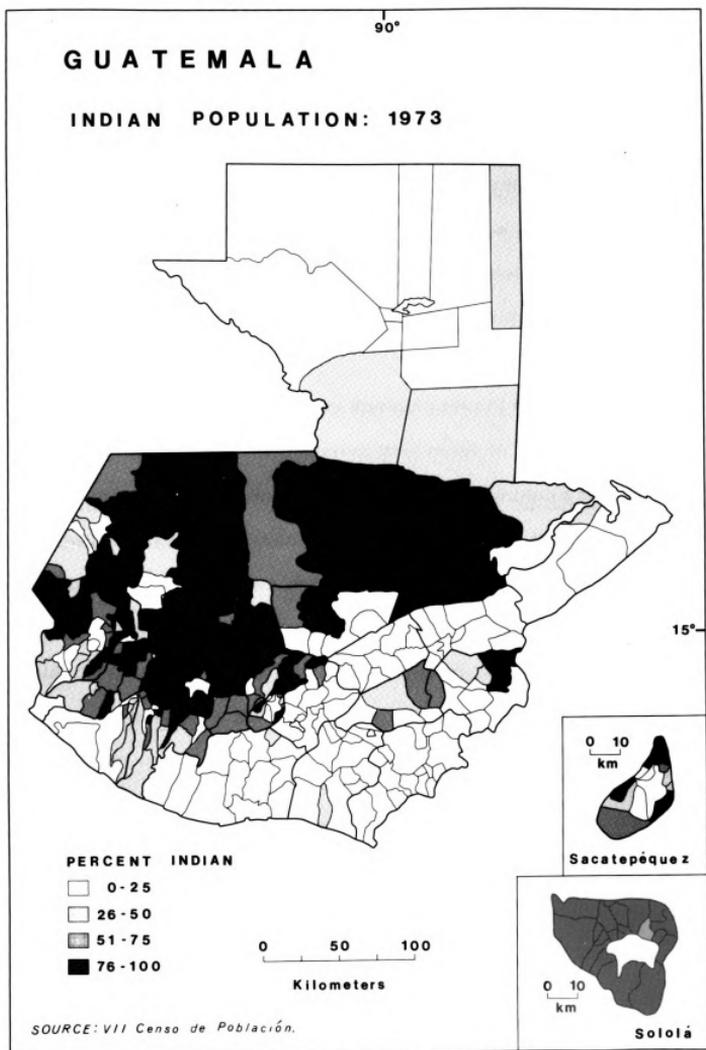


Figure 2



be an Indian or Ladino. Generally a person is considered to be Ladino if he speaks Spanish, uses western dress and wears shoes. Indians, on the other hand, speak their traditional language, maintain their traditional dress and do not wear shoes. Thus, Ladinos represent the western sector of Guatemalan society, while the Indians make up the traditional part. Ladinos generally tend to be better educated, more urbanized, wealthier in terms of material goods and possess a more "modern" outlook on life.

These two groups occupy two distinct parts of the country (Figure 2). When the Spanish arrived they chose to settle in the tierra templada of the eastern highlands leaving the tierra fria to the Indians. Today this settlement pattern remains. Indians are concentrated in the northern and western highlands, which comprise the departments of Huehuetenango, San Marcos, Quezaltenango, Sololá, El Quiché, Totonicapán, Chimaltenango, Alta and Baja Verapaz. The Ladinos form the major ethnic group in the remaining departments.

Economics

Economically, Guatemala is also a land of two different peoples: one rural and poor, and the other urban and generally better off. The population of the country is concentrated in the highlands where the main form of livelihood is subsistence agriculture, with some special-

ization for local markets. At the same time there exists a fairly affluent urban population whose economic bases are the large agricultural plantations, urban industry and government employment.

The large plantations form the basis of the commercial economy of Guatemala, and provide the bulk of the country's foreign exchange needed to finance the importation of various types of consumer and capital goods (Table 2). The plantations also provide the initial capital, which later filters through the urban economy. Thus, one of the greatest problems facing Guatemalan economic development is the land tenure situation (Table 3). Nearly 100,000 farm families possess holdings averaging half a manzana (less than one acre). Furthermore, almost 200,000 families are dependent on holdings averaging one manzana.

At the opposite end of the social spectrum, the wealthiest two percent of the landowners own over 60% of the land in farms. These large estates consist of coffee plantations in the piedmont zone and other areas of the tierra templada. Plantations of cotton, sugar cane and livestock are found on the southern coastal plain and other large landholdings are located throughout the highlands. Few of these landowners actually live on their estates; most reside in the capital leaving the plantation in the hands of an overseer.

TABLE 2

GUATEMALAN EXPORTS AND IMPORTS (1968)

Product	Value in \$1,000	% of Total
Exports		
Coffee	74,672	33
Cotton	41,033	18
Sugar and sugar products	11,278	5
Fruit, fresh and processed	10,626	5
Meat, fresh and processed	10,225	5
Vegetables, fresh and processed	3,460	2
Other (great diversity of goods)	<u>71,197</u>	<u>32</u>
	222,491	100
Imports		
Machinery for industrial use	21,564	9
Automobiles	20,633	8
Steel and iron	13,979	6
Electrical utensils and apparatus	13,337	5
Yarn and thread for textiles	11,579	4
Manufactures of metal	10,305	4
Other (great diversity of goods)	<u>162,484</u>	<u>64</u>
	253,881	100

Source: Direccion General de Estadistica, Ministerio de Economia, Anuarios de Comercio Exterior 1967-1968, Ministerio de Economia, Guatemala, 1971, pp. 22, 41.

TABLE 3

LAND TENURE IN GUATEMALA

Finca size	No. of Families	%	Area	%
1 manzana	85,083	20.4	46,683	1.0
1-2 m	98,658	23.6	136,325	2.8
2-5 m	129,115	30.9	386,704	7.8
5-10 m	52,023	12.5	346,904	7.0
10-32 m	37,025	8.9	637,948	12.9
32-64 m	6,631	1.6	290,726	5.9
1-10 caballerias	7,859	1.6	1,307,225	26.5
10 c	940	.2	1,774,221	35.9
	manzana = 1.7 acres		caballeria = 64 manzanas	

Source: Secretaría del Consejo Nacional de Planificación Económica. La Situación del Desarrollo Económico y Social de Guatemala, Guatemala, 1965, p. 114.

With the ever increasing population in the rural areas, additional pressures are being placed on the agricultural resource base (Table 4). Between 1950 and 1962 the land devoted to export crops increased at a much greater rate than that devoted to traditional subsistence crops. These acreage increases were derived mostly from decreases in the amount of fallow land. While increasing population pressure forces the transference of fallow land into subsistence agriculture, the increasing market opportunities for export crops encourages a similar transference.

TABLE 4

GUATEMALAN CROP ACREAGE (in 1,000 ha.)

Crop	1950	1962	Change
Corn and beans	536	653	117
Wheat	45	45	-
Coffee, fruit, rubber, cacao	153	281	122
Cotton	2	47	45
Sugar cane	15	27	12
Tea	4	9	5
Bananas	20	9	-11
Subsistence crops	581	698	117
Export crops	194	363	185
Sources of increased acreage			
Fallow land	428	169	-259
Pastures	581	543	-38
Forests	1,328	1,275	-53

Source: Secretaría del Consejo Nacional de Planificación Económica, La Situación del Desarrollo Económico y Social de Guatemala, Guatemala, 1965, p. 114.

Despite the fact that starvation is rarely recorded as a cause of death, malnutrition plays an important role in keeping the death rate high in rural areas. Missionaries in the highlands have estimated that

20% of the infant mortality is the result of complications arising out of malnutrition.¹⁶ Thus, while malnutrition is a major problem in the rural highlands, large amounts of land are utilized for export agriculture, the proceeds of which are often used to import luxury consumer items.

The inequalities in the division of wealth are further indicated by the GNP per capita data for urban and rural areas. Between 1950 and 1964 the urban GNP per capita, representing the larger plantation owners, importers and large factory owners, increased from \$595 to \$655, a net increase of 10%. During this same period of time, however, the rural GNP per capita, in the face of mounting population pressures, actually decreased from \$87 to \$84.¹⁷

Recent History

Throughout most of its history, Guatemala has been governed by a series of conservative dictators. Then, in 1944 the dictator Jorge Ubico was overthrown by university students and liberal army officers, ending the thirteen year reign of this famous caudillo. This began Guatemala's ten year social revolution.

¹⁶Oscar H. Horst, "The Spector of Death in a Guatemalan Highland Community", The Geographical Review, Vol. 57 (2), 1967, p. 165.

¹⁷Secretaría General de Consejo Nacional de Planificación Económica, La Situación del Desarrollo Económico y Social de Guatemala, Guatemala: Secretaria General de Consejo Nacional de Planificación Económica, 1965, p. 239.

The following year Juan José Arevalo was elected President and initiated a series of liberal reforms. Labor unions were legalized and given the power to bargain with management, educational programs were expanded, and the United Fruit Company was pressured to give up its holdings.

The next presidential elections were won by Jacobo Arbenz in 1950. He continued the social revolution and in 1952 instigated the passage of an agrarian reform law which gave the government the right to expropriate uncultivated estates and distribute them to landless workers. Under this law the plantations of the United Fruit Company were expropriated. Gradually the Communist Party gained more and more influence in the Arbenz government and Communist propaganda began to encourage peasants in the countryside to seize large estates. Between February, 1953 and April, 1954, over 30 plantations were taken over by armed laborers.¹⁸

In 1954, the United States government, fearing a Communist takeover, organized a force of Guatemalan exiles in Honduras. In June this force led by Castillo Armas invaded the country. Arbenz ordered the military commanders to arm the peasants. The officers refused to do this and they offered no resistance to the invasion. Arbenz fled the country and Armas became President.

¹⁸John Dombrowski, Area Handbook for Guatemala, Washington, D. C. : U. S. Government Printing Office, 1970, p. 35.

Under Armas the Constitution of 1945 was abolished, illiterates were disenfranchised, expropriated lands were returned to the former owners, and leftist political parties were disbanded. The Movimiento Democrático Nacional became the official party. Later the Democracia Cristiana Guatemaltica was founded by conservative Catholics, but in the 1960's it became a reformist party.

Armas was assassinated in 1957 and in the elections the following year, Miguel Ydígoras Fuentes, leader of a conservative coalition, was elected President. Ydígoras was overthrown by the army in 1963 and Colonel Peralta Azurdia ruled the country until elections were held in 1966.

The reformist Partido Revolucionário, led by Julio Méndez Montenegro, came to power during this election and held office until 1970 when the Movimiento Democrático Nacional returned to power with Carlos Arana Osorio as President. In 1974 the government sponsored compromise candidate, General Kjell Eugenio Laugerud, was declared winner of the elections. President Laugerud has proven to be somewhat less repressive than his predecessor and the country is experiencing a relatively peaceful political situation.

CHAPTER III

HYPOTHESES

Cooperatives in Guatemala were seen as one possible method to alleviate the problems of rural poverty caused by the increasing population and the restrictive land tenure system. Indebtedness is not severe; credit for small farmers in the highlands has generally been absent. Presently there are two major types of cooperatives found in Guatemala: credit and agricultural. The primary function of the credit unions is to supply fertilizer to the small farmers so that they may increase the productivity of their land. These credit unions also serve as an instrument to mobilize rural capital through the savings of their members.

The agricultural cooperatives are of two types: those involved in the production of traditional crops (corn, wheat, and potatoes) and those involved in commercial crop production (coffee, livestock, sugar cane, flowers, rice, platano, etc.). These cooperatives are generally smaller than the credit unions and deal mainly with the problem of agricultural marketing. Often, however, they act as suppliers of credit and agricultural inputs and implements where possible.

Again, the primary objective of this thesis is to determine those factors which have influenced the conception, development and present

status of the cooperative movement in Guatemala. Also an attempt will be made to determine what effects the cooperative movement has had on the spatial variation of economic well being in rural Guatemala. The hypotheses developed in this chapter focus on these two objectives and are derived from two major sources: first, the generalized socio-cultural characteristics of Guatemala's two peoples and the two distinct regions of the country they occupy; second, the generalizations advanced by Rogers concerning the nature of the diffusion process (see Chapter 1). Four hypotheses are advanced here.

The Ladino segment of the population is the more modernized and thus generally more receptive to innovations from the outside world than the indigenous population. The Indian areas, however, are strongly characterized by their traditional hierarchical social structure. This greater unity of a local population is more conducive to the acceptance of a group innovation such as a cooperative. Thus it is hypothesized that the Indian areas of the country will have higher rates of cooperative acceptance than the non-Indian region.

The region of Guatemala inhabited by Ladinos, being more modernized, is integrated into the national economy of the country to a greater extent than are the traditional and often isolated Indian settlements. Furthermore, the Hispanic region of the country has a higher level of literacy than its indigenous counterpart. Thus it is hypothesized that those agricultural cooperatives organized for

commercial crop production and marketing will more often be found in the Ladino areas rather than the Indian areas.

These two groups of people in Guatemala are also characterized by the pronounced differences in the nature of their social systems and the role of the individual within them. Indian society, being more traditional, has a strong community orientation while Ladino society has a more individualistic orientation. Important to the success of any cooperative is a strong community identification of its members. This leads us to the third hypotheses: that there will be a relatively higher rate of cooperative inactivity in the Ladino areas than that found in the Indian areas

Finally it is thought that cooperatives should have a positive impact on a local rural economy. Improvement of an area's economic conditions usually lessens the desire for outmigration, and can act as a factor for keeping a region's birth rate high. Thus, it is hypothesized that in those municipios of strong cooperative activity, there will be an improvement in the local economy, which will manifest itself in that municipio's rate of population growth.

The basic information relevant to these hypotheses will be exhibited in the following chapter and then the hypotheses will be reconsidered again in Chapter V.

CHAPTER IV
DIFFUSION OF COOPERATIVES

Early History

The cooperative movement of Guatemala had its origins in 1903 when the National Congress passed the "Ley de Sociedades Cooperativas". The object of this legislation was to improve the living conditions of the working classes and awaken their desire to save. Article 10 of the act stated the specific purposes of these societies:

Están comprendidas en esta denominación las sociedades de socorros mutuos, las de seguros de vida y contra accidentes y enfermedades, las cajas de pensiones de retiros, temporales y vitalicias, las de construcciones de casas para obreros, que se enajenen a largo plazo; y las de ahorro que se establezcan con el objeto de formar un capital a renta al cabo de cierto tiempo, mediante el pago de pequeñas cuotas periódicas . . . ¹⁹

Thus the act provided more for the establishment of private sector social security operations than the active encouragement of modern cooperative organizations.

The 1903 statute was further expanded in 1906 by the "Ley Protectora para Obreros", which elaborated on the types of private social security operations that were envisioned. ²⁰

¹⁹Juan Gerardo Ponciano, "El Cooperativismo en Guatemala" Impresiones Oy M, Guatemala, p. 1.

²⁰Ibid., p. 2.

Both of these acts permitted the establishment of cooperative societies between the workers and patrons, but did not provide for the independent and voluntary associations among the workers themselves. Often this union of the workers and patrons was not the best arrangement, as there were instances where the workers were defrauded of their investments by the better-educated patrons. In regard to the early cooperative legislation, Ildegar Perez Segnini has stated that:

Aunque ninguno de ellos puede acusar un balance favorable al país, y aquí viene la paradoja, todos cumplieron la finalidad para que fueron creados; servir de canal expeditivo para las oscuras negociaciones de los mercaderes políticos. Se crean las Cajas-Agrícolas, pero su radio de acción sólo alcanzaba a los parientes del Jefe Político a del Comisario que cultivaban tierras que, a su vez, eran del Jefe Político para hermanar el esfuerzo de campesino y del latifundista, limar mal entendidas, horrar la supuesta presencia de explotado y explotador . . .²¹

Thus, those cooperatives formed in Guatemala during the first decades of this century were not cooperatives in the modern sense of the word, but were private associations between employer and worker to provide for various types of social security insurance. Due to the mistrust between the workers and the patrons, there never really developed an effective cooperative movement during that time period.

The coming to power of Arévalo in 1945 marked the beginning of

²¹Ildegar Perez Segnini, "El Cooperativismo en Guatemala", Segunda Congreso de Cooperativas, Guatemala: Editorial del Ministerio de Educacion Publica, 1952, p. 22.

the modern cooperative movement in Guatemala. That year a constitution was adopted which contained provisions for the support and encouragement of cooperation. Article 94 stated that, "El Estado proporcionara a las colectividades y cooperativas agrícolas, instrucción técnica, dirección administrativa, maquinaria y capital".²² Further support was expressed in Article 100 which stated, "se declara de urgente utilidad social el establecimiento de sociedades cooperativas de producción, así como la legislación que las organice y fomente".²³ Thus the new liberal government expressed its desire to promote cooperatives and give them technical, administrative, and financial assistance.

Also in 1945, the National Congress passed the directive 146 which established the Departamento de Fomento Cooperativo and assigned to it the following responsibilities: (1) promote the creation and development of cooperative firms, especially those of production, consumption, social assistance, and credit, (2) promote the establishment of collective organizations for the exploitation of rural resources, (3) provide economic and technical aid to the cooperatives and collectives, and (4) promote cooperative education. The directive, further, provided the department with a minimum of \$200,000 to conduct its work and required membership in the National Cooperative System.²⁴

²²Blanca Myriam Matos Hermosilla, Estudio del Cooperativismo y Su Porvenir Para Guatemala, Guatemala: Universidad de San Carlos, 1948, p. 70.

²³Ibid., p. 71

²⁴Ibid., pp. 71-72.

As a result of this active government support and promotion, the cooperatives became in effect instruments of government policy. By 1951 the Departamento de Fomento Cooperativo had established thirty-two cooperatives,²⁵ which can be classified as: eight consumers' cooperatives, seven production cooperatives, one agricultural cooperative, three specialized cooperatives, and fifteen credit cooperatives. The consumer, production and specialized cooperatives were located primarily in the departments of Guatemala and Escuintla, while the majority of the credit cooperatives were found more in the departments of Chimaltenango and Quezaltenango.

In the early 1950's during the presidency of Arbenz Guzman, the government became more involved in the cooperative movement. The first Congress of Cooperatives affiliated with the national system was held in Guatemala the same year. The delegates discussed the many problems that the cooperative system faced, but generally tried to maintain the principles of the International Cooperative Alliance. At the close of the first national conference Manuel Galich stated the goals of cooperation in Guatemala and its relation to democracy:

El nascismo, el fascismo, el comunismo no han sido una reacción contra la crisis de la democracia: pero esa crisis no ha de salvarse destruyendo a la democracia, en su esencia que

²⁵Departamento de Fomento Cooperativo, Segunda Congreso de Cooperativas, Guatemala: Editorial del Ministerio de Educación Pública, 1952, pp. 25-29.

es el hombre, sino recuperando precisamente lo que de humano debe tener aquella: los valores morales, los valores de solidaridad, en una palabra, los valores de cooperación. La cooperación aparece así como salvación de la democracia y como muralla contra las dictaduras totalitarias, contra el aplastamiento de las libertades esenciales del hombre por la máquina fría del Estado y, en fin, contra la destrucción de la sociedad jurídica y el triunfo del materialismo, predicado por las escuelas comunistas.²⁶

Here the conference stated clearly its identification with the ideals of democracy and its total opposition to all forms of totalitarianism. Sr. Galich further expressed his view that cooperation would prove to be the salvation of democracy.

During the second national conference, held the following year (1952), the delegates moved to support many of the Arbenz government's policies. Important among these was the land reform program, which the delegates strongly encouraged as essential to the growth and development of the cooperative movement. As a result, the movement became more strongly identified with the Revolutionary government by the right-wing opposition. When the counter-revolution of Castillo Armas took place in 1954, the Department of Cooperatives was dissolved and those cooperatives dependent on its support collapsed.

²⁶Departamento de Fomento Cooperativo, Primer Congreso de Cooperativas, Guatemala: Editorial del Ministerio de Educación Pública., 1950, p. 201.

Modern Period of Expansion: 1956 - 1976

After Castillo Armas had secured his position as President, he issued a directive in 1956 which re-established, in part, the functions of the former Department of Cooperatives. Responsibility for these activities, however, was assigned to the Superintendent of Banks in the Economics Ministry. Due to an absence of funding, this agency could not actively promote and develop new cooperatives.

Gradually the identification of cooperation with Communism gave way, and in June, 1959, the National Congress reorganized the Ministry of Agriculture for, "La promoción de asociaciones de agricultores, ganaderos, industriales y trabajadores del campo, así como el fomento, expansión, asesoramiento y control de cooperativas agrícolas, pecuarias y sus derivados".²⁷ The Agriculture Ministry was given responsibility once again for the active promotion of cooperatives in Guatemala.

In February, 1960, President Ydígoras Fuentes directed the establishment of the Sección de Cooperativas and assigned to it the duty of developing, expanding, and aiding agricultural cooperatives in Guatemala. Responsibility for credit cooperatives, however, was left with the Superintendent of Banks.

The pattern of agricultural and rural credit cooperatives at the

²⁷Departamento De Cooperativas Agrícolas, Legislación Cooperativa, Guatemala; Ministerio de Agricultura, 1976, p. 11.

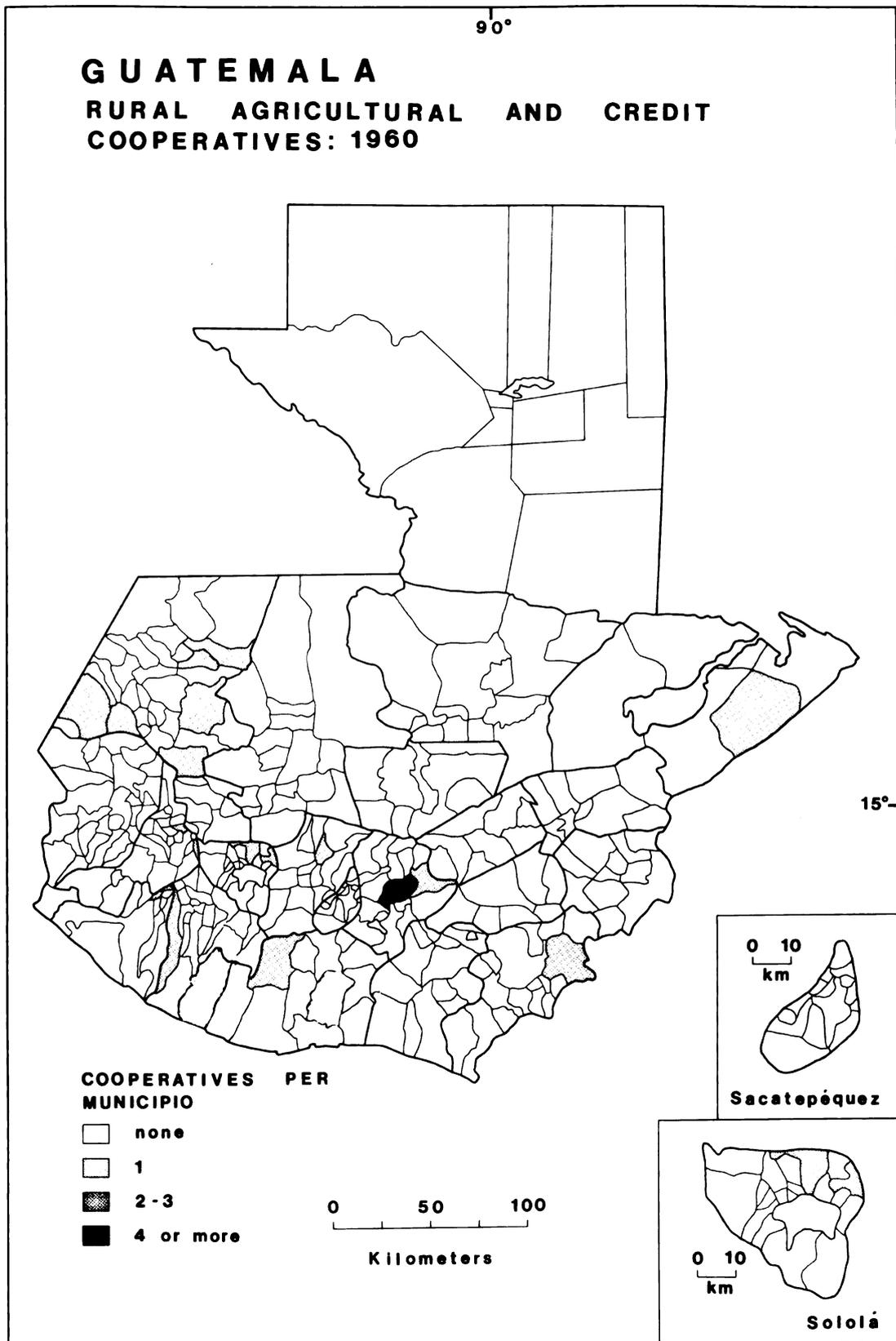


Figure 3

end of 1960 is represented by Figure 3. At this time there were twenty-three cooperatives in existence in the country. A breakdown of these cooperatives according to their type, geographic location, and operational status is provided by Table 5.

Of these twenty-three cooperatives, eleven were located in the departments characterized by an indigenous population. The earliest of these cooperatives were five rural credit societies founded by Indians in Huehuetenango department with the aid of Catholic priests. These were established in 1956 shortly after the enabling directive was issued by the President. All five of these credit cooperatives are currently active (1976).

The remaining six cooperatives were founded in the departments of Huehuetenango, Quezaltenango, Solola, and Chimaltenango for agricultural purposes. Four of these involved traditional crops (corn, wheat, and potatoes), while two were concerned with commercial crops (sugar cane and cattle). These coops were largely initiated by the local inhabitants shortly after the enabling legislation was issued. Of these cooperatives, one of the traditional crop societies and the two commercial crop societies have ceased to function, while the other three traditional crop societies are presently operating.

The other twelve cooperatives were founded in Ladino departments: one each in Retalhuleu, Suchitepequez, Escuintla, Jutiapa, and Izabál and seven in Guatemala. Most of these cooperatives

TABLE 5

GUATEMALAN COOPERATIVES, 1960 - 1976

Year	Number of Cooperatives				Number of Cooperatives Inactive in 1976		
	Credit	Traditional Crop	Commercial Crop	Total	Traditional Crop	Commercial Crop	Total
All Departments							
1960	5	9	9	23	5	9	14
1965	28	30	48	106	13	31	44
1970	62	119	138	319	40	77	117
1976	74	165	173	412	41	82	123
Indian Departments							
1960	5	4	2	11	1	2	3
1965	25	23	19	67	8	9	17
1970	48	68	53	169	17	17	34
1976	51	92	73	216	17	19	36
Ladino Departments							
1960		5	7	12	4	7	11
1965	3	7	29	39	5	22	27
1970	14	51	85	150	23	60	83
1976	23	73	100	196	24	63	87

(especially in Guatemala department) were initiated with the assistance and direction of the Department of Cooperatives in 1960, as it began operations. With the exception of one maiz cooperative in Suchitepequez, all of these societies have since become inactive.

To a large extent these patterns of cooperative type, location and operational status, set in 1960, maintained their consistency throughout the history of cooperative development in Guatemala. The Indian highlands have been the location of reasonably successful credit and traditional crop agricultural cooperatives and moderately successful commercial crop cooperatives. The Ladino departments, on the other hand, have been the site of rather unsuccessful commercial crop agricultural cooperatives. Recently there have been modifications in this general pattern, and successful credit and traditional crop cooperatives have been established in the Ladino areas.

The period 1961 to 1965 showed the beginnings of extensive cooperative growth in Guatemala. The Department of Cooperatives had received greater funding to finance its activities of cooperative promotion and support, and more cooperatives were developed through local initiatives. During these five years an additional 83 societies were founded.

It was also during this period that the Federación Nacional de Cooperativas de Ahorro y Crédito (FENACOAC) was established. The five original credit cooperatives in Huehuetenango, and one additional highland credit union joined together in 1964 to form a national alliance

in order to promote the interest of credit cooperatives in Guatemala. The following year the United States Agency for International Development (USAID) became interested in the development potential of FENACOAC, and initiated its extensive funding of this organization through the Bank of Guatemala.

At the end of 1965 a total of 106 cooperative societies had been developed in Guatemala. Most of these were established in the highlands (Figure 4). New cooperatives were developed in all of the Indian departments with the exception of Alta and Baja Verapaz. These efforts were most intensive in an area that extended from northern Quezaltenango department, through Solola to Chimaltenango. In the Ladino departments significant numbers of new cooperatives were added in Guatemala, Izabal and Escuintla.

By 1965 cooperatives in the Indian areas outnumbered those in the Ladino areas by two to one (Table 6). The most numerous type of cooperative society was the commercial agricultural form, followed by the traditional agricultural and credit cooperatives. Of these early agricultural cooperatives, many (57%) have since become inactive. Commercial crop agricultural cooperatives have experienced higher rates of inactivity (64%) than traditional crop agricultural cooperatives (43%).

However, important differences existed between the sixty-seven cooperatives located in Indian departments and the thirty-nine found in

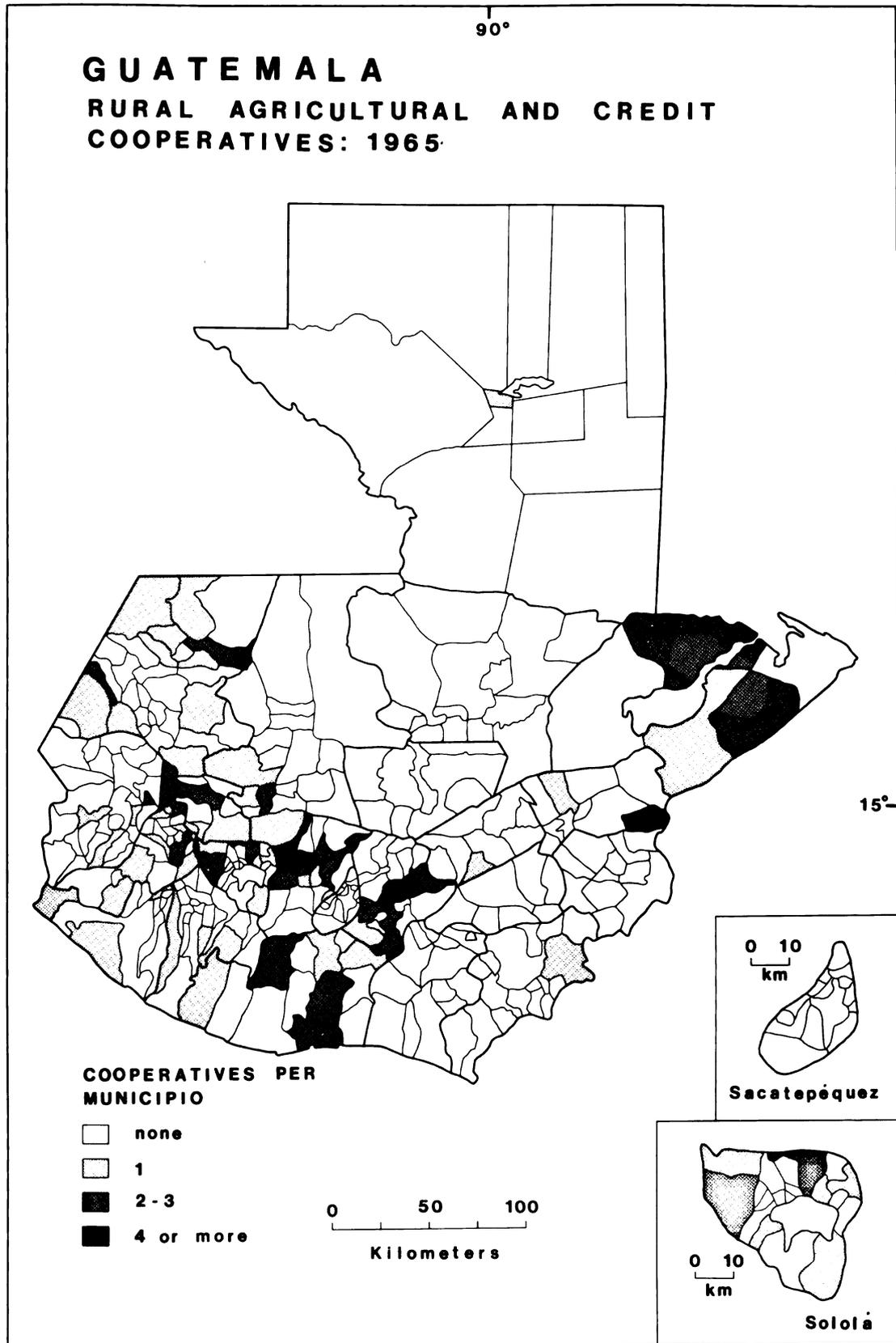


Figure 4

TABLE 6

CHARACTERISTICS OF GUATEMALAN COOPERATIVES, 1965

Characteristics	%
Location in predominantly Indian departments	63
Location in predominantly Ladino departments	<u>37</u> 100

Credit cooperatives	27
Traditional crop agricultural cooperatives	28
Commercial crop agricultural cooperatives	<u>45</u> 100

Agricultural cooperatives inactive by 1976	56
Traditional	43
Commercial	64

TABLE 7

REGIONAL CHARACTERISTICS OF GUATEMALAN
COOPERATIVES - 1965

Characteristics	Indian Depts. %	Ladino Depts. %
Credit cooperatives	37	8
Traditional crop agricultural cooperatives	34	18
Commercial crop agricultural cooperatives	<u>28</u> 100	<u>74</u> 100

Agricultural cooperatives inactive by 1976	40	75
Traditional	35	71
Commercial	47	81

Ladino departments due to variations in the cooperative mix and operational status (Table 7). The Indian areas had more or less equal numbers of the three types of cooperatives while in the Ladino departments just the opposite was true. Here the commercial crop cooperatives prevailed. There was a difference of almost two to one in the rates of inactivity for agricultural cooperatives in Ladino and Indian areas. Both geographic areas, however, showed higher rates of inactivity for commercial crop cooperatives than traditional crop cooperatives.

The Partido Revolucionario (PR) and Julio Méndez Montenegro came to power in the presidential elections of 1966. This reformist party strongly encouraged the formation of cooperatives through an increased budget for the Department of Cooperatives, by publicizing the cooperative movement and seeking additional amounts of international financial assistance.

As a result of these positive government policies, cooperatives developed extensively in all parts of the country not just in the Indian zone (Figure 5). In the five year time period (1966-1970) which corresponds to the presidency of Méndez Montenegro, a total of 213 new cooperatives were established. As a result cooperatives were now found in all departments of the country. In the Indian area the zone of intensive cooperative development stretched from Huehuetenango to Chimaltenango. Alta and Baja Verapaz were added to the list of departments with cooperatives.

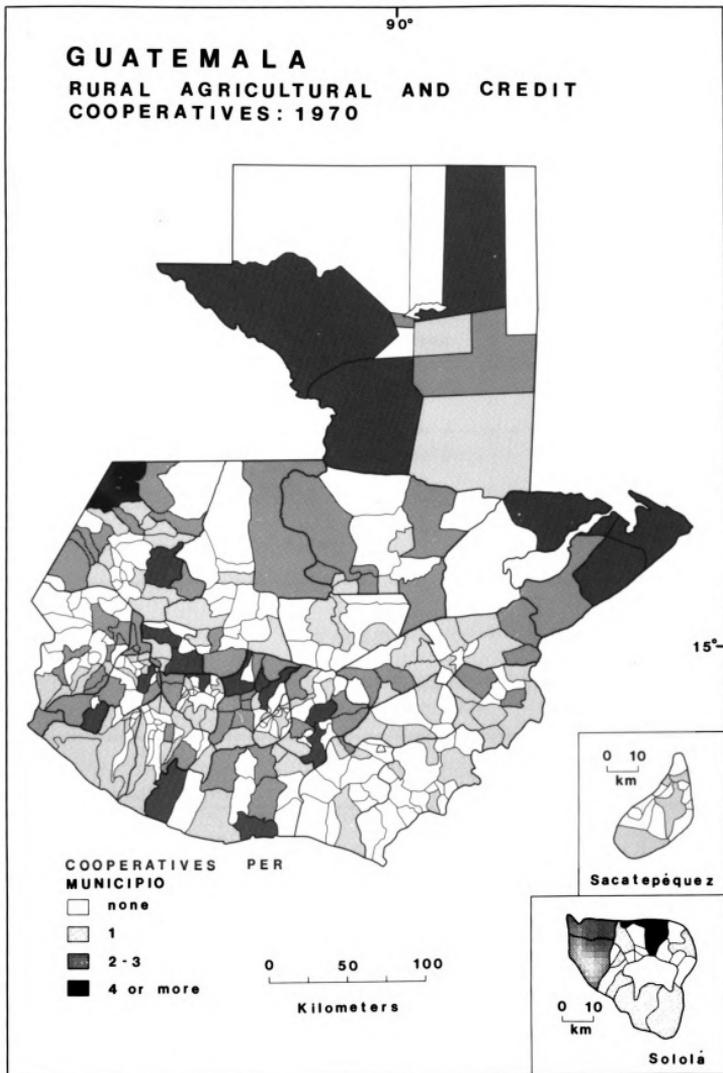


Figure 5

TABLE 8

CHARACTERISTICS OF GUATEMALAN COOPERATIVES, 1970

Characteristics	%
Location in predominantly Indian departments	53
Location in predominantly Ladino departments	<u>47</u> 100

Credit cooperatives	19.3
Traditional crop agricultural cooperatives	37.3
Commercial crop agricultural cooperatives	<u>43.3</u> 99.9

Agricultural cooperatives inactive by 1976	46
Traditional	34
Commercial	56

TABLE 9

REGIONAL CHARACTERISTICS OF GUATEMALAN
COOPERATIVES - 1970

Characteristics	Indian Depts. %	Ladino Depts. %
Credit cooperatives	28	9
Traditional crop agricultural cooperatives	41	34
Commercial crop agricultural cooperatives	<u>31</u> 100	<u>57</u> 100

Agricultural cooperatives inactive by 1976	28	61
Traditional	25	45
Commercial	32	72

In the Ladino areas cooperatives were expanded at a rapid rate and were established for the first time in Santa Rosa, Jalapa and Chiquimula. New societies were added to those already existing in the coastal plain and piedmont departments and in Guatemala, El Progreso, Zacapa and Izaba'. At this time the Petén became a leading cooperative region.

During this same interval the Federación Nacional de Cooperativas Agrícolas (FENACOAG) was organized (1968). This association, however, was never fully effective in the 1960's and remained inactive until the mid 1970's. USAID increased its financial assistance to FENACOAC in the late 1960's and lent encouragement for the development of other cooperative programs.

At the end of 1970, 319 cooperatives had been organized in various parts of the country. By this time the number of cooperatives in Ladino areas almost equalled those found in the Indian departments (Table 8). In respect to the cooperative mix, the relative amounts of traditional crop societies increased, credit unions decreased, and commercial crop societies decreased slightly, relative to 1965. The overall pattern of cooperative inactivity remained constant, i. e., higher rates for commercial crop societies. However there were generally lower rates overall attributable to the generally younger ages of the cooperatives.

Again, as in 1965, there were important differences between the

169 cooperatives situated in Indian departments and the 150 cooperatives located in Ladino departments (Table 9). The relative number of cooperatives in each of the three functional categories remained the same for the Indian departments, while the Ladino departments showed a relative increase in traditional crop societies and decrease in commercial crop societies. The overall rates of cooperative inactivity decreased, again largely due to the younger cooperative population, but the same patterns of higher Ladino and commercial inactivity remained.

The 1970's initiated a more conservative government policy toward cooperatives with the election of Arana as President. The government no longer strongly promoted the formation of small societies, and instead put greater emphasis on the promotion and strengthening of the existing successful cooperatives. This shift in policy was in response to the high rates of failure that characterized many of the smaller agricultural cooperatives. Despite this change in emphasis, the five and one half year period, 1971 to mid 1976, resulted in an additional 107 cooperatives added to the national total.

The period, 1971 to 1976, also brought greater USAID financial assistance to the cooperative movement. Loans to FENACOAC were increased and in 1972 the United States Government supported a program aimed at the development of six large regional agricultural cooperatives, joined together in a national association known as FECOAR

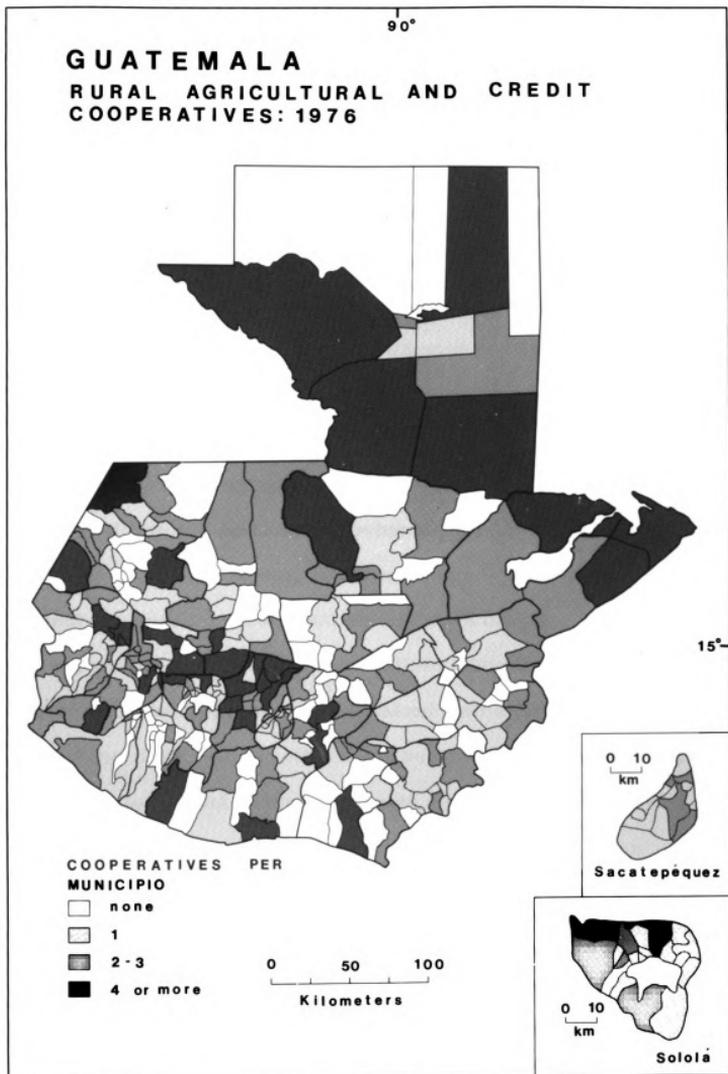


Figure 6

(Federación Nacional de Cooperativas Agrícolas Regionales). In 1973 USAID expanded its cooperative assistance to include some of the Department of Cooperatives technical assistance programs. The Federación Nacional de Cooperativas Agrícolas (FENACOAG) which had become inactive in the late 1960's, was reorganized in May, 1975 and began some limited cooperative programs.

As of July 30, 1976, there were 412 cooperatives of various types in Guatemala. They were concentrated in a belt stretching from Huehuetenango department to Guatemala and somewhat less numerous in the southeast part of the country (Figure 6).

The relative patterns of cooperative location, functions and operational status, remained somewhat constant between 1970 and 1976 (Table 10). There was, however, a significant decrease in the percent of agricultural cooperatives that were inactive, again reflecting the younger ages of many cooperatives. Furthermore, the commercial crop cooperatives maintained their relatively higher level of inactivity, and the differences between the two major regional groupings, Indian and Ladino, were also similar to those of 1970 (Table 11).

By mid 1976, 123 of the 412 cooperatives established over the past twenty years had become inactive. These were found principally in five departments: Escuintla, Guatemala, Izabál, El Petén, and Chimaltenango (Figure 7). All of these, with the exception of Chimal-

TABLE 10

CHARACTERISTICS OF GUATEMALAN COOPERATIVES, 1976

Characteristics	%
Location in predominantly Indian departments	52
Location in predominantly Ladino departments	48
	<u>100</u>
-----	-----
Credit cooperatives	18
Traditional crop agricultural cooperatives	40
Commercial crop agricultural cooperatives	42
	<u>100</u>
-----	-----
Agricultural cooperatives inactive	36
Traditional	25
Commercial	47

TABLE 11

REGIONAL CHARACTERISTICS OF GUATEMALAN COOPERATIVES, 1976

Characteristics	Indian Depts. %	Ladino Depts. %
Credit cooperatives	24	12
Traditional crop agricultural cooperatives	43	37
Commercial crop agricultural cooperatives	33	51
	<u>100</u>	<u>100</u>
-----	-----	-----
Agricultural cooperatives inactive	22	50
Traditional	18	33
Commercial	26	63

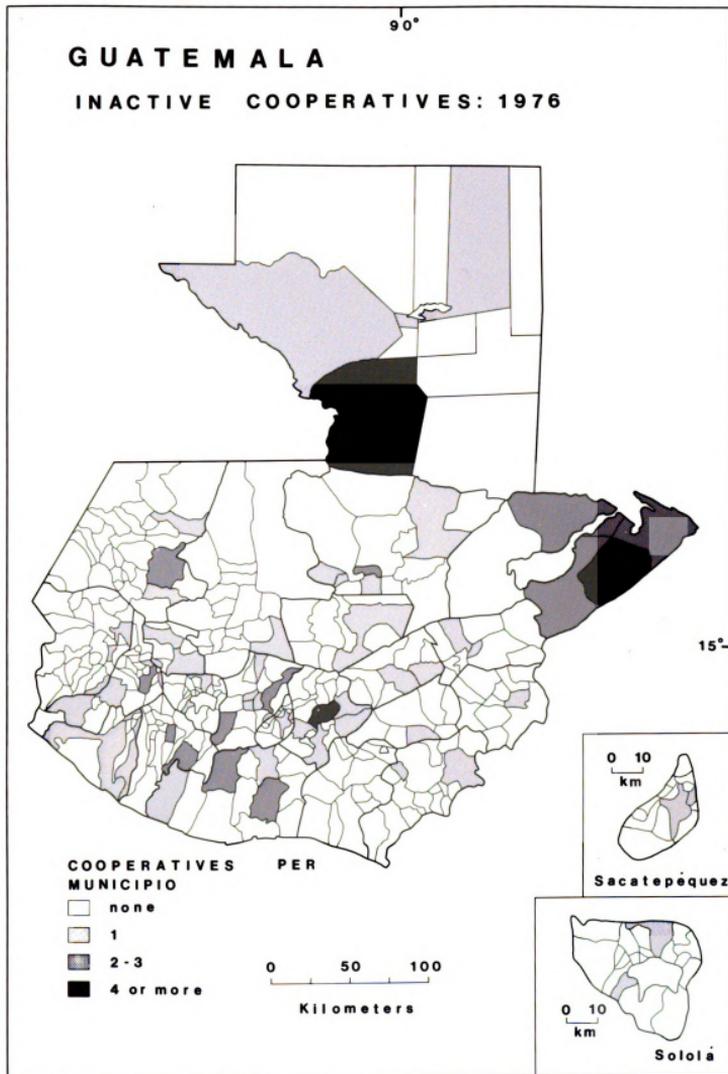


Figure 7

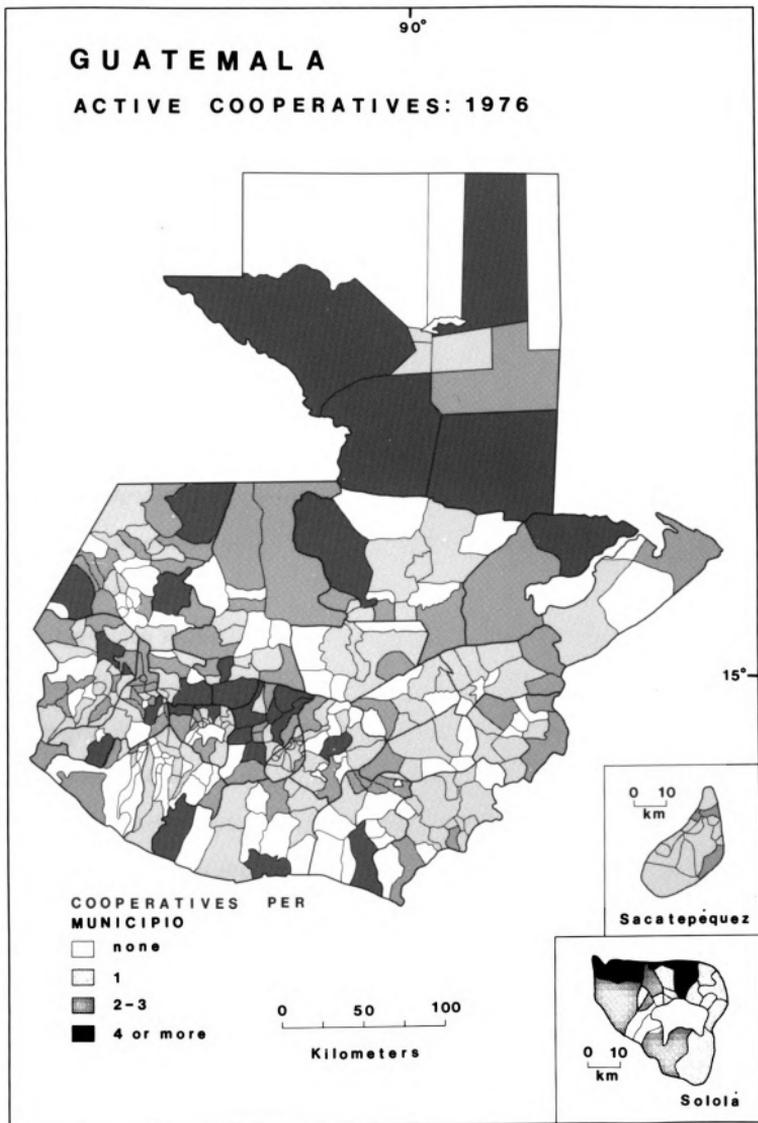


Figure 8

tenango, are predominantly Ladino departments. Other inactive cooperatives are scattered throughout the country, and once they are subtracted from the national total a more pronounced highland concentration is apparent. This concentration of cooperatives stretches from Huehuetenango to Chimaltenango, while relatively fewer cooperatives are found in the eastern and southern parts of the country (Figure 8).

National Cooperative Organizations

The Guatemalan cooperative movement is comprised of several major components. The most important organizations are the three national cooperative alliances: the Federación Nacional de Cooperativas de Ahorro y Credito (FENACOAC), the Federación de Cooperativas Agrícolas Regionales (FECOAR), and the Federación Nacional de Cooperativas Agrícolas (FENACOAG). In addition to the cooperatives belonging to these organizations, there are numerous small non-affiliated agricultural cooperatives. Support and assistance by the national government to the agricultural cooperatives is directed through the Department of Cooperatives of the Ministry of Agriculture.

The vast majority of Guatemalan cooperators belong to the credit cooperatives affiliated with FENACOAC (Table 12). This organization is the most important cooperative system in the country. Next in importance are the FECOAR regionals followed by the FENACOAG agricultural cooperatives and the non-affiliated agricultural cooperatives.

TABLE 12

GUATEMALAN RURAL COOPERATIVE MEMBERSHIP - 1976

Organization	Cooperatives	Members	Ave. No. of Members per Cooperative
FENACOAC	74	55,823	754
FECOAR	6	11,549	1,925
FENACOAG	73	5,260	70
Non-affiliated active cooperatives	<u>156</u>	<u>8,581</u>	<u>54</u>
	309	81,213	260
		<u>- 1,200*</u>	
		80,013	

*Subtraction for the Cooperative Santa Lucia in Solola department which is both a member of FENACOAC and FENACOAG.

FENACOAC

FENACOAC was founded in 1964 by six highland credit cooperatives. Since that time it has become the largest and most important group of cooperatives in the country. Much of its success, however, is due to the extensive USAID funding that it has received since 1965. The initial AID support was limited to technical and administrative assistance contracted through the Credit Union National Association (CUNA) of the United States. In mid 1960, USAID initiated direct assistance to FENACOAC. Its major objectives were:

Assist the National Federation of Savings and Credit Cooperatives to increase member savings and mobilization of investment resources, availability of credit to the rural population with special emphasis on the small and medium farmer, the effectiveness of affiliated cooperative enterprises and to promote the involvement through the organization of strong self-sufficient democratic institutions such as savings and credit cooperatives.²⁸

Thus, USAID envisioned four major goals for its project assisting FENACOAC: (1) the mobilization of local capital resources, (2) the provision of credit to small and medium sized farmers, (3) the strengthening of the local cooperatives and (4) the development of democratic institutions.

Until 1970 the focus of the United States government funding was the provision of managerial and advisory services via CUNA, for the development of local savings and credit cooperatives. In 1970, management of the Federation was turned over to the Guatemalans and a shift of emphasis took place from advisory services to direct financial assistance in order to strengthen the managerial and economic services provided by FENACOAC to its affiliated cooperatives. By 1975 the USAID had provided FENACOAC with grants totaling \$1,004,760 and loans of \$1,300,000.²⁹

²⁸William H. Rusch, Fred L. Mann, and Eugene Braun, Rural Cooperatives in Guatemala: A Study of Their Development and Evaluation of AID Programs in Their Support, McLean, Virginia: American Technical Assistance Corporation, 1975, Vol. II, p. 1.

²⁹Ibid., p. 4.

In the 1960's with the support of the USAID sponsored contract with CUNA, the number of credit cooperatives grew rapidly. At that time there were only the five credit cooperatives located in Huehuetenango department, but by 1965 the number had increased to twenty-eight and by 1970 there were sixty-two, located mostly in the Indian departments (Table 5). In 1970, at the same time that AID shifted its funding emphasis, there was also a FENACOAC policy shift from organizing new credit unions to the consolidation and growth of existing affiliated cooperatives. Whereas between 1965 and 1970 a total of thirty-four new credit cooperatives were organized, only twelve additional ones were established between 1970 and 1976. Individual membership grew from approximately 1,000 in 1965 to 16,000 in 1970 to 55,823 in 1976. Of these, Indian departments account for 35,985 members while 19,838 lived in Ladino departments.³⁰ This is a membership growth from an average of 258 per affiliate in 1970 to an average of 754 in 1976.

From a geographical perspective, most of the CUNA-USAID financial resources were channelled into the highland areas of the Indian departments, where the problems of minifundia are most severe. Until 1970 the FENACOAC cooperatives were almost exclusively located in the indigenous areas. Since that time an attempt has been made to

³⁰Ibid., p. 5

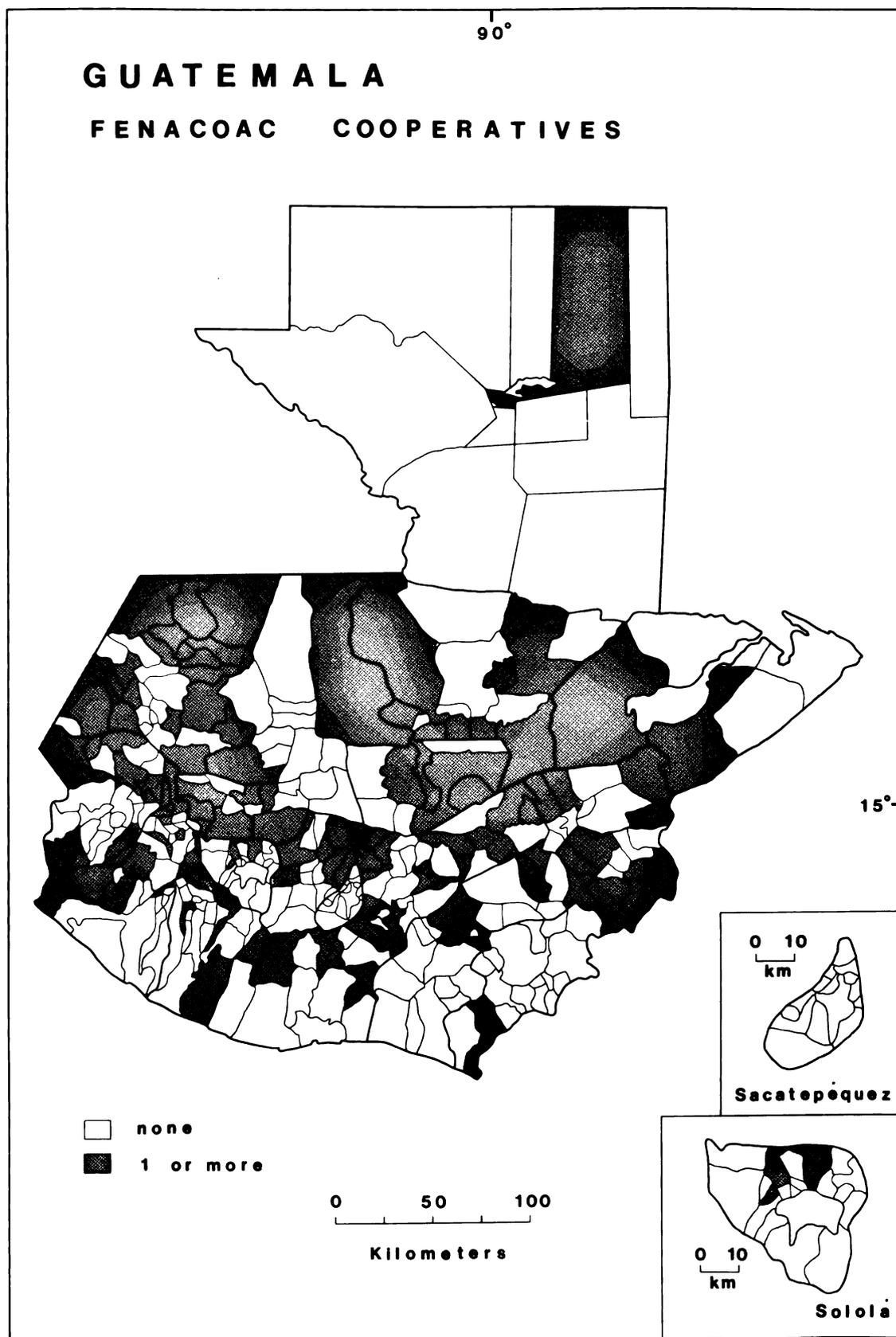


Figure 9

distribute credit unions more evenly. By 1976, credit societies are found throughout the country (Figure 9). Of the seventy-four affiliated credit societies operating in the country at this time, fifty-one (with 35,985 members) are located in Indian areas and twenty-three (with 19,838 members) in Ladino areas.

The organizational structure of FENACOAC is based in a General Assembly that consists of one delegate from each of the affiliated cooperatives. This body chooses a ten member Administrative Council, which in turn selects a three member Executive Committee and a manager. The manager has the responsibility of supervising the assistant manager and the heads of the six administrative departments comprised of finance, insurance and bonding, accounting, marketing, printing and public relations, and the regional offices. The regional offices, located in Huehuetenango, Quezaltenango and Sololá have responsibility for education and technical assistance. Thus, the policies and goals of the federation are set by its members and the administrative structure is responsible for carrying out these goals.

FENACOAC cooperatives provide a number of services to their members, most important of which are credit and savings opportunities. The federation makes loans to affiliated cooperatives for up to five times the net worth of the cooperative (i. e. , five times its share capital). These loans are made almost exclusively for sub-loans to individual members for productive purposes. The term of loans to

affiliates is usually limited to eighteen months and interest charges vary between 8 and 10% depending on the source of the funds.

Affiliated cooperatives lend to their members at 1% per month for terms of six, ten, and twelve months. Some cooperatives require a guarantor before the loan is granted while others require an unrecorded mortgage on the crop being financed, or on some other property. The maximum amount an individual member may borrow is set at five times the amount of his paid-in share capital.

At the end of 1974, cooperatives had ninety-eight loans outstanding with the federation for a total value of \$1,599,196. At the same time, 24,440 individual members had loans outstanding with the affiliated cooperatives of \$3,647,000.³¹

Upon joining a credit cooperative an individual must make a small contribution, known as share capital. Thereafter he must make an additional contribution, usually equal to 10% of the amount that he borrows. This share capital forms the bulk of the affiliated cooperative's assets. A low rate of dividends is paid on these share interests (3 to 5%) and a member may not make withdrawals until he retires from the cooperative. This system has proved to be a highly successful method of mobilizing rural savings. In the future, a significant amount of the credit needed by small farmers can come from this locally created capital.

³¹ibid., p. 8

As of December 31, 1974, the total amount of loans outstanding by FENACOAC cooperatives (\$3,647,000) was exceeded by the amount of members savings (\$3,848,000). Of the members' savings, \$3,440,501 was in the form of share capital and \$408,000 was in savings accounts, which are voluntary and pay a somewhat higher yield than share accounts.³²

The occupational status of FENACOAC cooperative members is predominantly agricultural. A survey of thirty-nine cooperatives conducted by the federation in 1973 revealed that 46% of their members were farmers while 14% were artisans and individuals engaged in small businesses and industries. The remaining 40% were classified as having other occupations. This group includes large numbers of people engaged in both farming and handicrafts as well as commercial activities.³³

The survey also indicated that the credit portfolios of the thirty-nine cooperatives generally were evenly divided between agricultural and commercial purposes (Table 13). The number of actual loans for agricultural purposes, however, is somewhat larger than that indicated. Many of the large category of loans for "other purposes" were for the purchase of agricultural land and for payment of debts, many of which were incurred in transactions relating to agricultural land, crops, and

³²Ibid., p. 8.

³³Ibid., p. 11.

TABLE 13

INVESTMENT AREAS OF FENACOAC LOANS

Purpose of loan	Number of loans	Dollar Amount
Agriculture	6, 557	\$836, 825
Livestock	618	114, 819
Artesania (handicrafts)	244	36, 522
Small industries or businesses	2, 695	767, 037
Transport vehicles	147	107, 340
Housing	225	94, 606
Other purposes	<u>5, 569</u>	<u>784, 945</u>
	16, 055	\$2, 742, 094

animals. Some transport vehicles also were purchased primarily for agricultural purposes. In addition to these agricultural loans, many small businessmen and artisans benefited through loans obtained from FENACOAC affiliated cooperatives.

A large part of the success that FENACOAC cooperatives have experienced is due to the extensive funding that they have received from USAID. If not for these grants and loans totalling over 2.3 million dollars, it would have been virtually impossible to extend a significant number of loans or generate the 4 million dollars of rural savings that have been accomplished.

FECOAR

The Federación de Cooperativas Agrícolas Regionales is a system of six large regional cooperatives organized by the Agricultural Cooperative Development International on contract from the USAID. The objective of this project was "to assist the existing agricultural cooperatives to organize a national federation and regional cooperatives to . . . (a) serve as a channel for technical information (b) provide production credit (c) provide necessary inputs (d) organize marketing and (e) provide an institutional structure through which all of the above functions can be carried out without prejudice to the popular participation in the decision-making process and the social values of cooperation".³⁴ These objectives are very similar to those on which AID support to FENACOAC credit cooperatives was based.

The regionals were organized by FECOAR extension teams that went into areas believed to have the greatest potential for forming regional cooperatives. They contacted the leaders of organizations working in the area and the mayors of the local aldeas (a division of a municipio). Through these persons they were better able to discuss with farmers the possibility of forming local groups interested in

³⁴William H. Rusch, Fred L. Mann and Eugene Braun, Rural Cooperatives in Guatemala, A Study of Their Development and Evaluation of AID Programs in Their Support, McLean, Virginia: American Technical Assistance Corporation, 1975, p. 30.

associating with a new regional cooperative. They did not try to recruit existing cooperative members or groups.

Again, as with the FENACOAC cooperatives, most of the activity was concentrated in the Indian highlands. Five of the six regionals (10,403 members) are located in the eastern highlands (Figure 10).

Each regional is made up of a number of local groups which must have at least fifteen members. These groups function as an informal sub-organization of the cooperative and have their own Board of Directors consisting of a President, Vice President, Secretary, Treasurer, and one or two Vocales. Local groups have the responsibility of approving loans for members (through a Credit Committee), organizing education programs (Education Committee), and dealing with agricultural matters related to technical assistance, fertilizers and harvests (Agricultural Committee).

A general assembly of one representative from each local group elects the regional's Board of Directors which consists of a President, Vice President, Secretary, Treasurer, two Vocales, and a Vigilance Committee of two members. These individuals in turn contract with a manager and he hires other employees.

The FECOAR administrative organization consists of a General Assembly of affiliates, made up of five representatives from each of the regionals, who in turn are elected by their Board of Directors. The General Assembly chooses its own Board of Directors consisting of a

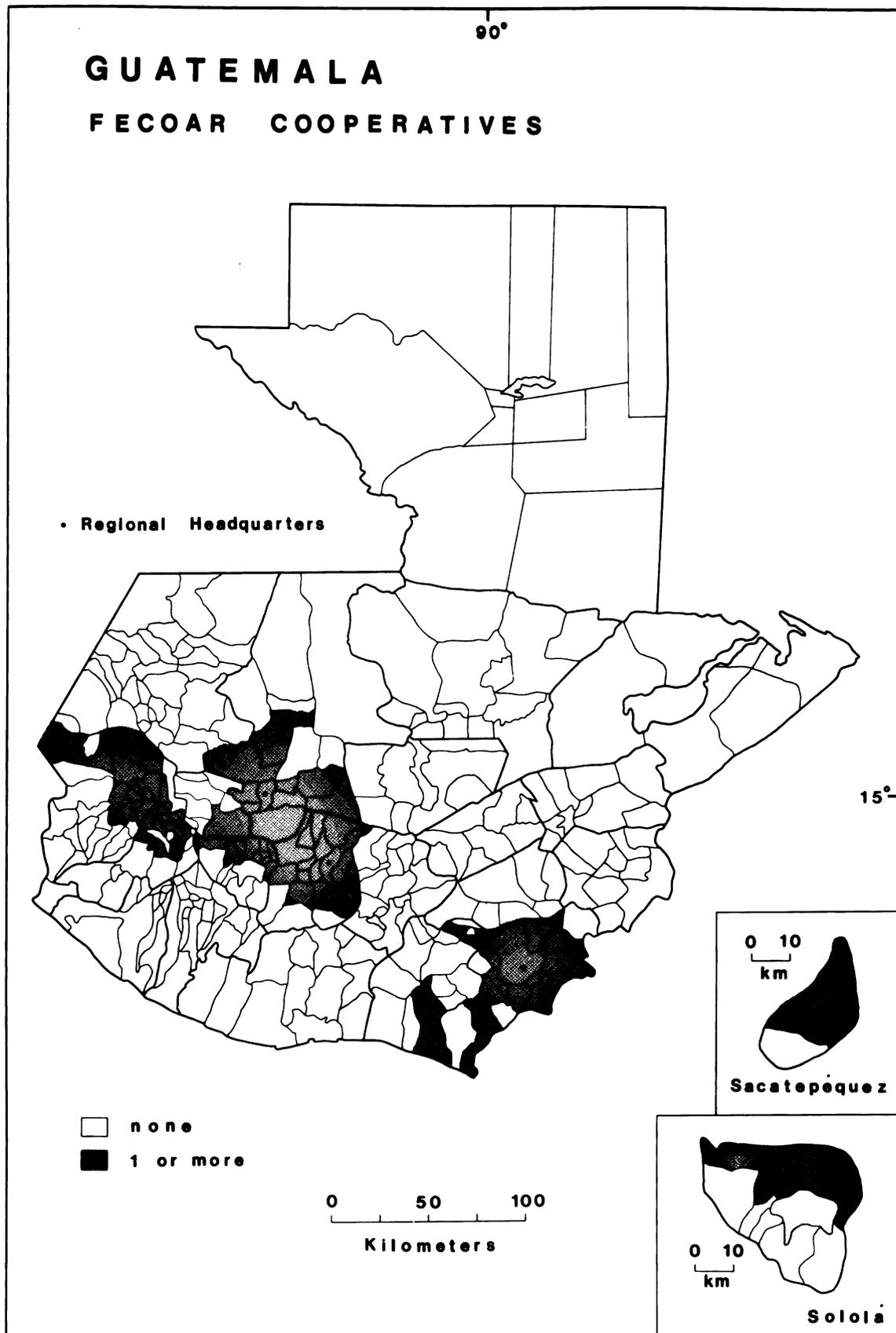


Figure 10

President, Vice President, Secretary and two Vocales, who in turn, choose an Executive Committee and Vigilance Board and hire the general manager of the Federation.

The major function of FECOAR is the provision of credit to its affiliates for redistribution to their members. The federation charges 8% interest on loans to its member cooperatives, while affiliates charge 1% per month for loans to members plus a 1 to 1.5% planning fee. Membership in a local group requires a purchase of a \$10 capital share in the regional cooperative. Then the member may borrow up to five times the amount of capital shares that he possesses. Upon repayment of the loan, the individual is required to purchase additional capital shares equal to 10% of his loan. Share capital may not be withdrawn until the member retires from the cooperative. Through this mechanism local capital is mobilized and the financial resources of the cooperative are increased.

The FECOAR regional cooperatives also offer a variety of other services to their members. They sell agricultural inputs, mostly fertilizer, but also seed, insecticides, and herbicides, and offer a wheat threshing service. Transportation services are provided by the regional cooperatives for inputs purchased and wheat sold to the cooperative. All of the regionals (except Rey Quiché) market wheat, while others have sold small amounts of beans and corn. FECOAR provides technical assistance in bookkeeping and accounting and organizes educa-

cational courses and meetings for members and the regional staffs. Each regional has two agricultural extension agents who provide agricultural advice to the members.

The significant achievements which FECOAR has accomplished since 1970 are in large part due to the generous support it has received from the USAID. As of 1975, this agency provided the federation with grants valued at \$1,463,477 and long term low interest loans of \$3,000,000.³⁵ The extensive support, however, has mobilized over \$400,000 of local capital in the form of share capital and as the USAID loans are recycled, the independent financial strength of the regional cooperatives will be increased.

FENACOAG

The Federación Nacional de Cooperativas Agrícolas was first organized in 1968. At this time, however, there was limited funding available and the federation remained inactive for a number of years. FENACOAG was reorganized in May, 1975 with the assistance of a loan from the sugar cane cooperative, La Unidad in Suchitepequez. Since then the organization has received some funding from the Banco Nacional de Desarrollo Agrícola of Guatemala (BANDESA) and the Inter-American Foundation.

By August, 1976, seventy-one agricultural cooperatives had

³⁵Ibid., p. 36.

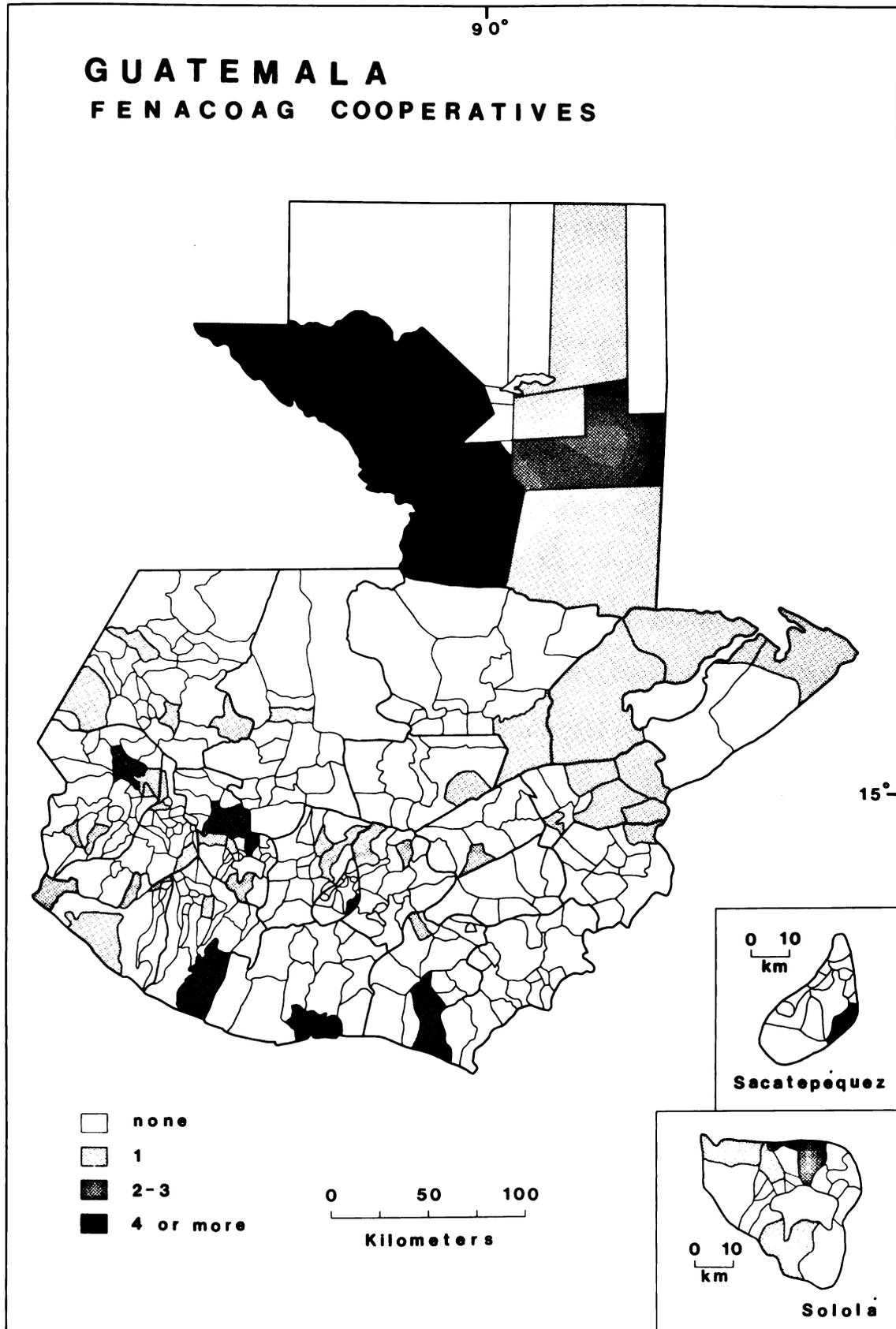


Figure 11

joined the federation. Of these, twenty-seven, with 2,680 members, were located in the Indian departments, while forty-four, with 2,580 members, were located in Ladino areas (Figure 11). These cooperatives have a peripheral concentration, which may represent an attempt by isolated cooperatives to obtain more assistance and aid from the government. Unlike the other two large national cooperative federations, FENACOAG has not adopted a philosophy of close ties to the national government. It emphasizes an independent stance as the best method to achieve government action favorable to cooperation.

The objectives of the federation are twofold; first, to promote cooperative agricultural education, and second, to assist in the commercialization of the cooperatives. To achieve these goals FENACOAG has adopted a three stage approach: (1) education, (2) technical services, and (3) credit. The federation at this time is still in the educational stage of its program. It, however, has had some initial success in obtaining foreign marketing contracts for two of its affiliates. The cooperative Aquacatán has an agreement with a North American purchaser for 250 tons of garlic a year and the cooperative Avicultores del Petén supplies 400 tons of honey annually to a Belgian contractor.

FENACOAG is still in its early stages of development and it is uncertain whether it will become an important and lasting organization. Thus far its activities have been very limited and there is little hope for extensive growth development without outside financial assistance, either from the national government or international sources.

NON-AFFILIATED COOPERATIVES

The largest number of cooperatives in Guatemala, however, are small agricultural societies not affiliated with the national cooperative organizations. As with affiliated cooperatives, these are located mostly in the Indian departments (105 cooperatives, with 6,478 members vs. 51 cooperatives with 2,103 members in the Ladino departments). Unlike the FECOAR and many FENACOAC cooperatives, the societies were usually developed through local initiatives. External sources of financial assistance are seldom available to these non-affiliated cooperatives, and due to this lack of financial resources, most are seldom able to provide significant services to their members. As a result, many of these societies lapse into inactivity after a few years. It is among these cooperatives that FENACOAG is attempting to unify into a more effective cooperative movement.

There are, however, two sources of assistance for these cooperatives. The Department of Cooperatives provides advice on cooperative organization and administration, planning for the provision of essential agricultural inputs, and technical agricultural information. Also, on a number of occasions, the department has made loans to those cooperatives that were considered to have the greatest potential.

The agricultural cooperatives which produce coffee have an additional institution to which they can turn for aid, the Asociación Nacional del Cafe (ANACAFE). This organization is responsible for

the promotion and protection of coffee production and coffee producers. ANACAFE provides a wide range of technical services to the coffee producers and has exclusive authority to distribute production quotas and regulate exports. Each cooperative is allocated a production quota which is then divided among the members.

The major service provided by the coffee cooperatives to their members is the processing of coffee. Coffee cherries must be processed shortly after harvesting, and if a producer does not have processing equipment or transportation, he has to sell quickly, often at low prices. Thus, it is an advantage for cooperatives to construct small processing operations, store the product until the price is favorable, and transport the coffee at an appropriate time. A number of coffee cooperatives have joined together to form an association whose headquarters is located in Palín, Escuintla.

Again, with the exception of the coffee cooperatives and a certain limited number of others, most of the non-affiliated societies offer limited member services, due to their small size and lack of financial resources. Whether or not FENACOAG can organize them into a meaningful and effective national association remains to be seen.

Present Pattern of Cooperation

Since the size of a cooperative varies significantly with its function and affiliation status, a municipio may have a large number of coopera-

tives, but they may all be very small and weak, resulting in low rates of cooperative membership. Similarly an area may contain one large cooperative and relatively high rates of membership. Thus, to obtain an accurate idea of the strength of cooperation in any given area, the relative number of cooperative members per capita is a better measure than the absolute number of cooperatives.

In calculating the number of cooperative members for each municipio, some estimation was necessary. Many of the FENACOAC cooperatives and all of the FECOAR regionals have members in more than one municipio. A breakdown of membership by local area was obtainable for most of the FECOAR agricultural cooperatives, but unattainable for most of the larger credit unions. In instances such as these, the number of members per municipio was estimated by apportioning the number of members relative to each municipio's population.

The resulting pattern of relative cooperative membership indicates a concentration in the predominantly indigenous departments (Figure 12). A concentration of cooperative membership exists in the highlands and extends from Huehuetenango through northern San Marcos, Quezaltenango and Sololá to Chimaltenango and Alta and Baja Verapaz. Other areas of significant cooperative membership outside of this zone are found in the lowlands of southern San Marcos, in the departments of El Progreso and Zacapa and in El Petén. Areas of insignificant cooperative membership exist in the Pacific lowlands, the eastern highlands,

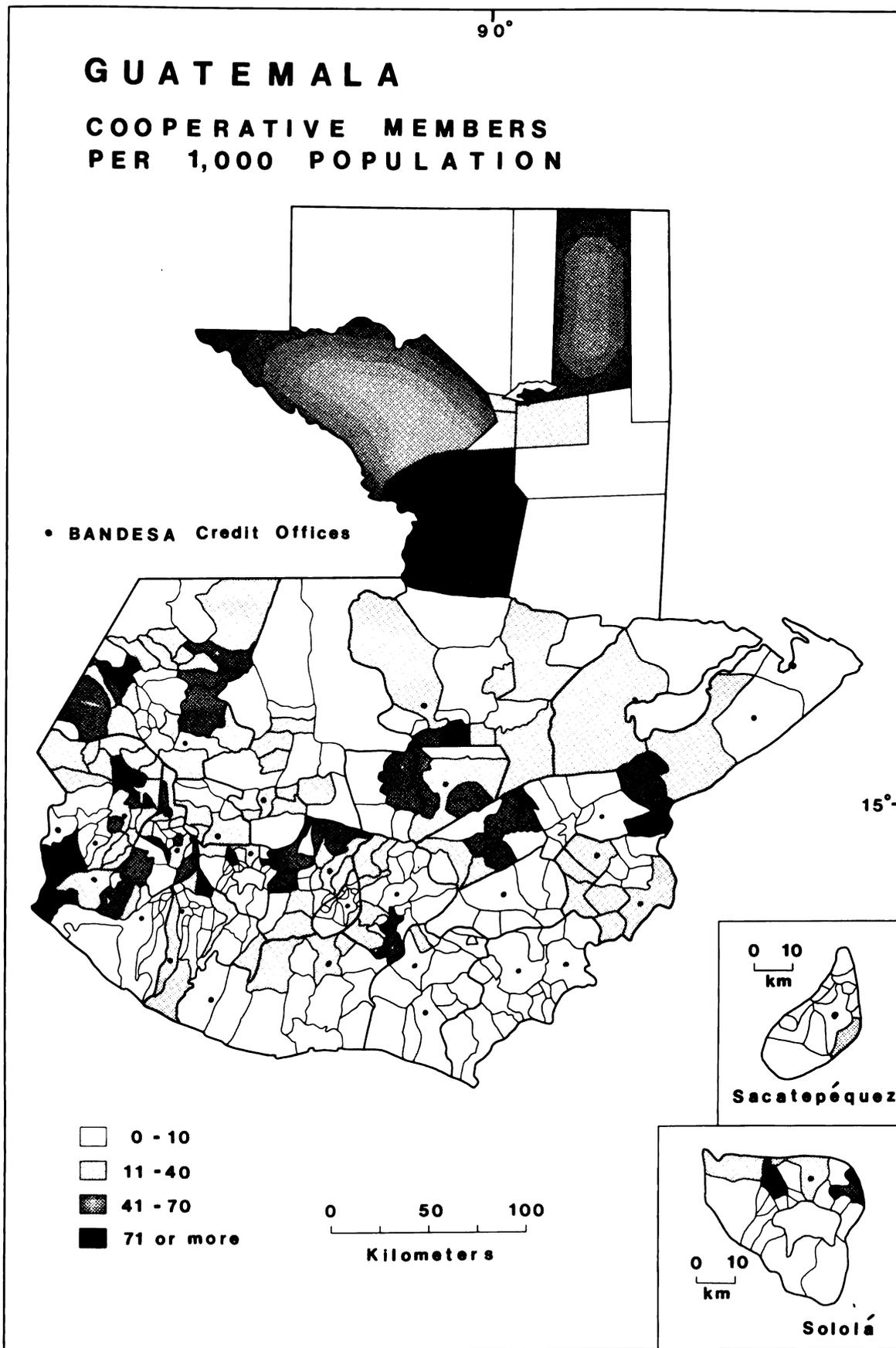


Figure 12

and the central interior of the country. In mid-1976 there were a total of 80,013 cooperative members in Guatemala, indigenous departments accounting for 54,346 members, while 25,667 were in Ladino departments.

The municipios with the highest rates of cooperation exist in those areas with important credit or regional agricultural societies (Table 14). It is important to note that this classification is based on the number of cooperative members per 1,000 population. The societies listed include many of the most important in the country, in addition to relatively small cooperatives in small municipios. There are many other large and important cooperatives, which are located in areas with large populations. Twenty-six cooperatives have memberships of more than 1,000 (Table 15). Thus, with 51,587 members the twenty-six largest societies account for 64% of the total national cooperative membership. Cooperative membership is not only concentrated in the FENACOAC and FECOAR alliances, but also is found predominantly in the largest of the affiliated cooperatives.³⁶

BANDESA Credit Offices

Spatial distributions of cooperative membership may be influenced by the small farmer credit programs of BANDESA, the Government of

³⁶The appendices provide a complete listing of all Guatemalan cooperatives, giving their location, membership, and date of organization.

TABLE 14

MUNICIPIOS WITH 71 OR MORE COOPERATIVE MEMBERS
PER 1, 000 POPULATION

Municipio	Cooperative
Tamahú Alta Verapaz	Santa Maria Asuncion (FENACOAC)
San Antonio Huista Huehuetenango	San Antonio (non-affiliated) Lucha Progresista (FENACOAC)
Sayaxché Petén	Numerous FENACOAG cooperatives
Huitan	San Cristobal Cabricán (FENACOAC)
Concepción Chiquirichapa Quezaltenango	Cerrito Chiquirichapa (FENACOAC)
Tejutla	Movimiento Campesino (FENACOAC) Justo Rufino Barrios (FECOAR)
Rio Blanco	San Cristobal Cabricán (FENACOAC) Healy Castillo (FENACOAC)
Ayutla	Adelante (FENACOAC)
Pajapita	Adelante (FENACOAC)
Catarina	Adelante (FENACOAC)
Ocos San Marcos	Adelante (FENACOAC)
Santa Lucia Utatlán Solola	Santa Lucia (FENACOAC, FENACOAG)
Santo Tomas la Union Suchitepéquez	La Florida (FENACOAC)
La Union Zacapa	La Paz (FENACOAC) La Union (FENACOAG)

TABLE 15

COOPERATIVES WITH MORE THAN 1,000 MEMBERS

Cooperative	Location	Members
1. Union Progresista Amatitlaneca	Amatitlan, Guatemala	4,450
2. Santiago de Coatepeque	Coatepeque, Quezaltenango	3,700
3. Adelante	Ayutla, San Marcos	3,300
4. Flor Chimalteca	Chimaltenango, Chimal- tenango	2,664
5. Justo Rufino Barrios	San Marcos, San Marcos	2,640
6. Rey Quiché	Quiché, El Quiché	2,640
7. San Cristobal	San Cristobal Verapaz, Alta Verapaz	2,570
8. Movimiento Campesino	Tejutla, San Marcos	2,497
9. San Miguel Gualán	Gualán, Zacapa	2,442
10. Cobán	Cobán, Alta Verapaz	2,400
11. Diez de Septiembre	Mazatenango, Suchite- péquez	2,137
12. Kato - Kí	Chimaltenango, Chimal- tenango	2,050
13. Guayacán	El Progreso, El Progreso	1,983
14. San Andres Semetabaj	San Andres Semetabaj, Solola	1,631
15. San Pablo Rabinal Achí	Rabinal, Baja Verapaz	1,437
16. Chiquimulja	Chiquimula, Chiquimula	1,426

TABLE 15 (continued)

Cooperative	Location	Members
17. San José Obrero	Esquipulas, Chiquimula	1, 426
18. San Miguel Chuimequena	Totonicapan, Totonicapan	1, 310
19. Santa Lucia	Santa Lucia Utatlán, Sololá	1, 200
20. Santa Lucia Cotzumalguapa	Escuintla, Escuintla	1, 146
21. Cuna del Sol	Jutiapa, Jutiapa	1, 146
22. San Juan Bautista	San Juan Sacatepéquez, Guatemala	1, 129
23. Esperanza Chiantleca	Chiantleca, Huehuetenango	1, 114
24. San Jeronimo	San Jeronimo, Baja Verapaz	1, 062
25. La Paz	La Union, Zacapa	1, 044
26. San Andres	Cuilco, Huehuetenango	1, 043
		<u>51, 587</u>

Guatemala's development bank (Figure 12). This agency lends money directly to small farmers at subsidized interest rates of 5 to 8% annually, compared to the 12% cost of a FENACOAC or FECOAR loan. If farmers can obtain credit at a lower rate, there is no advantage for an individual to join a credit union or regional agricultural cooperative with their rigid savings requirements and loan restrictions. Thus, the government is, in effect, in competition with the credit cooperatives in the provision of credit to small farmers.

It is noteworthy that in only one case (Sayaxche, Petén) is a BANDESA credit office found within a municipio with seventy-one or more cooperative members per one thousand population. Furthermore, the cooperatives in Sayaxche are all small agricultural cooperatives which do not engage in the provision of credit. In only two instances (Flores, El Petén and El Progreso, El Progreso) does a BANDESA office coincide with a municipio in the forty-one to seventy members per one thousand category. There are, however, numerous cases where a BANDESA coincides with a municipio in the eleven to forty member category per one thousand population. Thus, it seems as though the subsidized credit practices of the Guatemalan government have to a degree affected the final spatial pattern of cooperatives in Guatemala, by competing with cooperatives in selected areas.

CHAPTER V
CONCLUSIONS

The conclusions that follow are based on consideration of the evidence pertaining to the hypotheses stated in Chapter III. Furthermore, the major issues facing the cooperative movement in the lesser developed world (Chapter I) will be examined in their Guatemalan context.

Hypotheses Examined

The four hypotheses advanced in Chapter III expected that there would be (1) more cooperatives and cooperative members in the Indian departments, (2) a greater frequency of commercial agricultural cooperatives in the Ladino area, (3) a greater frequency of inactive agricultural cooperatives in Ladino departments, and (4) higher rates of population growth in those municipios where cooperation is well established due to the anticipated improved economic conditions. Each of these hypotheses will be considered in regard to the data presented in the previous chapter.

Regional Frequency Variations

The information presented indicates that the predominantly Indian departments have substantially higher rates of cooperative

membership and a greater number of organized active cooperatives than the predominantly Ladino departments (Tables 5, 6, 8, 10; Figure 12). Thus the first hypothesis that seeks to establish higher rates of cooperative activity in the indigenous areas is supported. This concentration, however is not caused by the traditional communal Indian society being more conducive to group innovations than the more individualistic Ladino society. The difference is attributable to greater government efforts to organize cooperatives among the Indian population. As seen earlier, the major geographic focus of the USAID supported FENACOAC and FECOAR programs was, and still is, the Indian zone. Only recently have these projects been expanded to the rest of the country. The Department of Cooperatives, as well as other development organizations such as the Peace Corps and various religious groups, have also emphasized the Indian highlands in their work.

The communal oriented social structure of the indigenous population, however, does seem to be a contributing factor in the regional variations in cooperative activity. The data indicates that the smaller agricultural cooperatives, largely the result of purely local initiatives, also have a bias in favor of the Indian areas. Thus, given the absence of any spurious factors such as outside financing, it seems cooperatives and cooperative membership would have a greater concentration in the more traditional communal oriented part of the country.

Regional Differences in the Functions of Agricultural Cooperatives

The second hypothesis stated that in the Ladino areas there would be a greater emphasis on commercial crop agricultural cooperatives than on traditional crop agricultural cooperatives which were expected to prevail in the Indian areas. Again, the information presented supports this hypothesis (Tables 5, 7, 9, 11). This emphasis on commercial cooperatives existed in both the absolute and relative measures, though less so in the absolute consideration in recent years (Table 5). The assumption that Ladinos are more highly educated and have greater interactions with the commercial economy offers one possible explanation of this regional difference.

Other factors which might tend to favor the establishment of commercial cooperatives in the predominantly Ladino departments are (1) their closer proximity to Guatemala City, the main center of commercial activity and the largest market for agricultural produce in the country and (2) the relatively greater problems of transportation in the very rugged and often isolated Indian areas of the country.

Regional Variations in Agricultural Cooperative Inactivity

The third hypothesis, which stated that there would be higher rates of agricultural inactivity found in the Ladino areas, is also supported by the evidence presented (Tables 5, 7, 9, 11). The Ladino areas experienced higher relative and absolute rates of inactivity,

which is in large part due to the emphasis on commercial crop agricultural cooperatives. These cooperatives are much more difficult to successfully develop due to problems that may arise in marketing the produce. Commodity prices may fall making it impossible for a cooperative to sell its agricultural produce at a profit, and often commercial cooperatives are organized only to later find that there is no effective market for the type of product they hoped to produce. Traditional crop cooperatives, on the other hand, seldom have difficulty in finding a market for their agricultural produce. There exists in all parts of the country a strong local demand for the basic grains (corn, wheat, beans).

The greater incidence of commercial agricultural cooperatives in Ladino areas, however, does not sufficiently explain the higher rates of inactivity found there. The Indian areas have experienced not only lower absolute and relative rates of failure for agricultural cooperatives as a whole, but they also have lower rates of inactivity for each of the two types of agricultural cooperatives. Thus there must be additional factors involved in this problem.

Perhaps the most important variable involved in this regional variation in cooperative inactivity is the difference in the nature of Indian and Ladino social structure. As stated previously, the Indian areas are characterized by a very traditional and stable social system. Ladino society, on the other hand, being more western, is characterized

by a greater transience and impermanence relative to Indian society. Thus, the problems that might lead to cooperative inactivity (i. e. quarreling among members, or the migration of certain members to urban areas) more likely would arise in the Ladino rather than Indian areas.

One final factor which contributes to the relatively higher rates of cooperative inactivity in the Ladino departments is the high number of inactive cooperatives found in El Petén and Izabal. Recently these two departments have been the scene of extensive pioneer settlement from the highlands. Therefore, the high inactivity rates may be due to the failure of initial agricultural settlements where cooperatives had been formed, as well as the previously described cultural factor.

Impact of Cooperatives on Local Economic Development

It was assumed that the economic conditions of an area would have an impact on the local rates of population growth. Here it was thought that improved economic conditions would contribute to higher rates of population growth due to the lessened need for outmigration and birth control practices. This assumption led to the hypothesis that if the cooperative movement has had a significant impact on rural economic conditions in Guatemala, then those municipios which have the highest rates of membership should experience relatively higher rates of population growth.

This hypothesis was tested by using data from the nine predominantly indigenous departments where two thirds of all the cooperative members are located. The rates of total and rural population change between 1964 and 1973 for each municipio in the Indian departments was calculated as well as the number of cooperative members per 1,000 population. Other variables included population density, the percent of land in holdings of over ten manzanas, and the percent of families with holdings of less than two manzanas.

A statistical analysis was performed in an attempt to determine the relationship between population change (both total and rural) and the municipios' rates of cooperative membership (Tables 16 and 17). The test resulted in correlation coefficients of .09 for the variables "total population change" and "percent cooperation membership", and .11 for the variables "rural population change" and "percent cooperative membership". These low correlation coefficients indicate that there is little significant linear relationship between a municipio's rate of cooperative membership and its rate of population growth.

There are two possible conclusions that could be drawn from the above results. One, that the cooperative movement in Guatemala has

not yet developed to an extent where the economic gains that it brings to an area can be manifested in that area's rate of population growth. If the assumption of a close relationship between economic conditions and population growth is accepted, then this indicates that the cooperative movement has not had a significant overall impact on economic conditions in the indigenous departments of Guatemala.

The assumption of a strong relationship between the economic conditions of a local area and its rate of population growth, however, may not be a valid assumption. The statistical analysis indicated that the land tenure and density variables also had little significant linear relationship with the two population change variables. The correlation coefficients for the "total population change" variable and the "density", "percent latifundia", and "percent minifundia" variables were -.18, -.12, and -.00 respectively, while the correlation coefficients for the "rural population change" variable and the "density", "percent latifundia", and "percent minifundia" were -.18, -.21, and .01 respectively. The restrictiveness of the land tenure system and the population density are perhaps the most important factors which determine the relative economic conditions for most of the rural inhabitants of Guatemala. Thus, it may be concluded that the rate of population change is not a good indicator of differential levels of economic affluence at the local level. It would be inappropriate to draw a conclusion as to the impact of the cooperative movement on the various municipios' economic conditions given the apparent inappropriateness of the assumption on which the hypothesis was based.

TABLE 16

CORRELATION MATRIX: TOTAL POPULATION
CHANGE AND RELEVANT VARIABLES

	X ₁	X ₂	X ₃	X ₄	X ₅
X ₁ % <u>total population</u> change	1.00000				
X ₂ % cooperative membership	.11537	1.00000			
X ₃ population density	-.18432	-.09655	1.00000		
X ₄ % minifundia	-.00287	-.07602	.51490	1.00000	
X ₅ % latifundia	-.12133	.00219	-.36141	-.38265	1.00000

TABLE 17

CORRELATION MATRIX: RURAL POPULATION
CHANGE AND RELEVANT VARIABLES

	X ₁	X ₂	X ₃	X ₄	X ₅
X ₁ % <u>rural population</u> change	1.00000				
X ₂ % cooperative membership	.08688	1.00000			
X ₃ population density	-.17962	.09655	1.00000		
X ₄ % minifundia	.01141	-.07602	.51490	1.00000	
X ₅ % latifundia	-.21213	.00219	-.36141	-.38265	1.00000

Major Issues of Cooperation

As stated previously the cooperative movement in the lesser developed world in general has not lived up to its expectations. Guatemala, however, is an exception to this rule. Here the cooperative movement has not only lived up to the objectives postulated by its benefactor (USAID), but has surpassed them. The cooperative movement in this country has been effective and dynamic, providing credit and services to rural peoples. To understand the reasons for its rapid growth and success it is necessary to put the Guatemalan situation in the context of the major issues facing cooperation in the lesser developed world today. These issues which were stated in Chapter I involve: (1) the cultural differences between the western and third worlds, (2) the role of state aid, (3) the issue of cooperation and politics, and (4) the issue of cooperation and non-solvent people. These major issues will now be examined in their Guatemalan context.

A perennial problem of initiating cooperatives in the lesser developed countries has been the difficulties in having the local population adopt the ethics of hard work and thrift. Without these ethics a cooperative movement cannot succeed. In Guatemala the cooperators who are members of the larger dynamic cooperatives have demonstrated these characteristics. They have been eager to obtain credit for fertilizer purchase in order to increase the productivity of their land. The required purchases of additional share capital with each additional

loan has proven to be an effective method of mobilizing local capital, which is so essential for continued self-sustaining economic development. The Guatemalan cooperative movement as a whole has not suffered from the motivational problems which have plagued other Third World movements, and it has developed an effective institutional mechanism to ensure the continued development of a local capital base.

Moreover, the most important single issue, which has had the greatest impact on the development of cooperatives in Guatemala, is that of state aid. Without the assistance that the USAID has provided for FENACOAC and FECOAR, it would have been impossible for these organizations to develop to their present size and scale. This financial aid has proven to be a necessary catalyst for the mobilization of local capital upon which the cooperatives will later be developed. Without an outside source of capital assistance, cooperatives in the early development stage find it difficult to provide the services which their organizers had hoped for. An absence of these services often results in a cooperative lapsing into inactivity. Furthermore, the state aid which the movement received has had a positive effect on the saving habits of the members. Without this USAID capital, the loans, which are so essential in building up member share capital, could not have been accomplished.

The cooperative movement in Guatemala has felt the often harsh repression which occurs when it identifies itself with a "radical"

political philosophy. Following the fall of the revolutionary government the movement was suppressed throughout the country. Given the present political situation in the country the cooperative movement has chosen to be non-political and cooperate with the government as much as possible. This policy has paid off well in the form of various types of governmental assistance.

The most important issue, however, that the Guatemalan cooperative movement has to face today and in the future is that of cooperation and non-solvent people. For a credit union to provide loans to its members it must be certain that the credit will be repaid. If a cooperative cannot make good on its outstanding capital then the members will lose confidence in it and withdraw their savings. Thus far the FENACOAC and FECOAR cooperatives have not been plagued by this problem due to their generous overhead support from AID. This foreign assistance, however, cannot be expected to continue indefinitely.

Many of the cooperative members of Guatemala are already existing in very marginal economic circumstances, and if these members subdivide their lands to pass on to their sons the problem will become even more serious. Thus, a situation may develop where the cooperative movement will be unable to assist a large segment of the population. A cooperative can help individuals to develop to a greater extent those resources that they have available to themselves. There is little, however, that a cooperative can accomplish if its members have no resources that can be developed more efficiently.

CHAPTER VI

SUMMARY

Modern cooperatives were first developed in Western Europe, during the middle of the 19th century, as an attempt by the lower classes to form production, consumption, and credit societies, thus escaping from the exploitive forces of the capitalistic economy. The principles of voluntary and open membership, democratic control, cooperative education, and mutual assistance, combined with the ethics of hard work, self help, and thrift, contributed to the gradual accumulation of capital, freeing the peasants from exploitation and allowing them to increase their wealth through its reinvestment.

The success of cooperatives in Western Europe led to their introduction into the Third World, where similar achievements were expected. In India, the British hoped that cooperatives could solve the problem of rural indebtedness, which had reduced large segments of the lower classes to debt bondage. These expectations, however, were not fulfilled. Throughout the less developed world, cooperative movements have seldom made a significant impact in alleviating poverty. Indeed, in these countries, often the only viable cooperatives were those organized by the well-to-do farmers who engaged in export agricultural production. The great problem to be overcome was the effec-

tive diffusion of these organizations among the lowest classes who have most need of them.

√ Guatemala provides an example of a Third World cooperative movement that has succeeded in its objectives, reaching large segments of the lower classes. √ Here, rural indebtedness is not a problem to be overcome, as the countryside generally lacks any kind of credit system. √ The objectives of the movement are to help farmers with limited acreages increase their agricultural productivity by providing credit and technical assistance. √

√ The first societies were organized during the Arevalo/Arbenz period (1944-1954), when the new liberal governments sought to build power bases in the countryside among the peasants. With the subsequent revolution, these cooperatives fell into inactivity. Gradually the association of cooperation with Communism diminished, and in the late 1950's and early 1960's, legislation was again passed permitting a resurgence of cooperative activity.

√ The first societies to be organized in this new period of cooperation were credit unions in Huehuetenango department and agricultural societies found throughout the highlands. Between 1961 and 1965, cooperatives experienced extensive growth in the country. FENACOAC, a national association of credit unions, was established in 1964 and the USAID began its funding of this organization the following year. At the end of 1965 a total of 106 cooperatives were in existence, located mostly in the Indian highlands. √

✓ The cooperative movement received a major stimulus in 1966, when Julio Méndez Montenegro, member of the Partido Revolucionario, assumed the Presidency. This reformist President strongly encouraged the formation of cooperatives. During his term in office (1966-1970) a total of 213 new cooperatives were established. ✓ At the same time, USAID greatly expanded its financial assistance to FENACOAC. At the end of 1970, 319 cooperatives had been organized in various parts of the country, the majority of which sprung up in the Ladino area. In the 1970's there was a lessening of government support for the formation of small local societies, and instead greater emphasis placed on the promotion and strengthening of existing successful cooperatives. This policy shift was in response to the high rates of failure that characterized many of the smaller cooperatives. In the 1970's loans to FENACOAC, from USAID, were increased and the United States government supported a program aimed at the development of six large regional agricultural cooperatives, joined in a national association, FECOAR. The third national cooperative alliance, FENACOAG, was reorganized in 1975 when it began limited programs. By July 30, 1976, there were 412 cooperatives of various types in the country, concentrated in a belt stretching from the departments of Huehuetenango to Guatemala. Cooperatives are somewhat less numerous in the south-east part of the country. Of the total cooperative groups over one-fourth have become inactive since their organization. ✓

The various types of cooperatives differ in membership size. The FENACOAC credit unions and FECOAR regionals are much larger and together they make up over three-fourths of the total cooperative membership. Furthermore, these cooperatives have provided most of the cooperative services that have been delivered to members. When the ratio of cooperative members to total population is mapped, a concentration of cooperation appears in the Indian highlands, reflecting the predominant location of the alliances' affiliates.

Certain spatial variations in the cooperative movement were anticipated, specifically the hypotheses expected that there would be: (1) more cooperatives and cooperative members in the Indian departments, (2) a greater frequency of commercial agricultural cooperatives in the Ladino areas, (3) a higher rate of inactive cooperatives in Ladino departments, and (4) higher rates of population growth in those municipios where cooperation is well established, due to anticipated improved economic conditions. The first three hypotheses were substantiated, while the fourth was not. Greater numbers of cooperatives and cooperative members were found in the Indian departments, due primarily to the concentration of outside financial assistance in this region. The communal oriented social structure of the indigenous population also seems to be a contributing factor. As the data indicates the smaller agricultural cooperatives, largely a result of purely local initiatives, also have a bias in favor of the Indian areas.

Commercial crop agricultural cooperatives were found to be more frequent in the Ladino departments. This concentration is attributable to the Hispanic population being more highly educated and having greater interactions within the commercial economy, as well as being closer to Guatemala City, the main center of business activity.

Higher rates of inactivity in the Ladino departments may be attributable to the greater transience and impermanence of Ladino society relative to the indigenous population. Problems that might lead to cooperative inactivity more likely would arise in the Ladino than the Indian areas. Furthermore, the Ladino emphasis on commercial crop agricultural cooperatives, which are more difficult to successfully develop, is an important factor in the disparity.

Little relationship was found between the local rates of cooperative membership and the differential rates of population growth. The absence of this relationship may indicate that the cooperative movement is still too young to have had a significant impact on local economic conditions, or that changes in a municipio's level of living may not be manifested in its rate of population growth.

The major factors which have contributed to the success of the Guatemalan cooperative movement, have been the support of the rural poor, the assistance from the USAID, and the encouragement from the national government. It still remains to be seen whether the cooperatives will make a significant contribution to the overall development effort, given the magnitude of the problem.

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APPENDIX A

FENACOAC CREDIT COOPERATIVES

Cooperative	Municipio*	Members	Year
	<u>Alta Verapaz</u>		
Cobán	Cobán, Panzós, Tucurú	2,400	1969
San Cristobal	San Cristobal Verapaz, Lanquín, Cahabón (Alta Verapaz), Santa Cruz, Uspantán (El Quiche)	2,570	1967
Santa Maria Asuncion	Tactic, Tamahú	927	1967
	<u>Baja Verapaz</u>		
San Jerónimo	San Jerónimo, Salamá	1,062	1972
San Pablo Rabinal	Rabinal, San Miguel Chicaj	1,437	1967
	<u>Chimaltenango</u>		
Kato - Kí	Chimaltenango, San Martin Jilotepeque, Patzún, Tecpán, El Tejar	2,050	1972
San Juan Comalapa	Comalapa	220	1964
	<u>Chiquimula</u>		
Chiquimulja	Chiquimula, Ipala, San José La Arada	1,426	1969
La Divina Pastora	Olopa	NA	1968
San José Obrero	Esquipulas, Quezaltepeque, Concepción Las Minas	1,426	1966
	<u>El Progreso</u>		
Guayacan	El Progreso, San Agustín Acasaguastlán, Sanarate, San Cristóbal Acasaguastlán	1,983	1966

*For those cooperatives with members in more than one municipio, the cooperative office is located in the first municipio listed.

Estrella del Norte	<u>El Quiché</u> San Miguel Uspantán	179	1969
Parroquial Santa Cruz	Santa Cruz del Quiché, Chichicastenango, San Pedro Jocopilas, San Antonio Ilotenango	NA	1963
Itzucintlan	<u>Escuintla</u> Escuintla, Guanagazapa	500	1972
Santa Lucia Cotzumalguapa	Escuintla	1,146	1971
Union Popular	Tiquisate	284	1972
San Jose Palencia	<u>Guatemala</u> Palencia	NA	1965
San Juan Bautista	San Juan Sacatepéquez, San Pedro Sacatepéquez, San Raymundo	1,129	1968
Union Progresista Amatitlaneca	Amatitlán, Villa Nueva, Villa Canales (Guatemala), Palín (Escuintla)	4,450	1965
Santa Elena	Villa Canales	300	1966
Coatán	<u>Huehuetenango</u> San Sebastián Coatán	188	1964
Esperanza Chiantleca	Chiantla	1,114	1966
Esquipulas	La Libertad	239	1964
Flor Bataneca	San Sebastián Huehuetenango	240	1971
Guadalupe	Santa Cruz Barillas	304	1969
Ixtateca	San Mateo Ixtatán	132	1967
La Encarnación	Aquacatán	520	1966
La Esperanza	San Juan Ixcoy	291	1969
Lucha Progresista	San Antonio Huista	175	1967

Miguelenos	San Miguel Acatán	374	1965
Nentón	Nentón	107	1967
Rafaelena	San Rafael La Independencia	185	1969
San Andrés	Cuilco	1,043	1956
San Ildefonso	Ixtahuacán	291	1956
San Pedro	Soloma	493	1956
Santa Ana	Malacatancito	157	1953
Santa Eulalia	Santa Eulalia	566	1956
Santa Teresita	San Pedro Necta	159	1966
Santa Teresita Frontera	La Democracia	738	1967
El Estor	<u>Izabal</u> El Estor	382	1973
Alianza San Pedro	<u>Jalapa</u> San Pedro Pinula	112	1970
Moyuta	<u>Jutiapa</u> Moyuta	NA	1976
El Despertar	<u>Petén</u> San Benito, Flores	491	1969
Advance Popular	<u>Quezaltenango</u> Cantel	491	1962
Cerrito Chiquiri- chapa	Concepción Chiquirichapa	956	1963
El Bienestar	Cantel	411	1963
Flor de Mayo	Cajolá	NA	1969
Healy Castillo	San Carlos Sija, Sibilía (Quezaltenango), Río Blanco (San Marcos)	428	1965

La Espiga de Oro	La Esperanza	148	1963
Salcajá	Salcajá	828	1965
San Cristóbal Cabricán	Cabricán, Huitán (Quezaltenango), Río Blanco (San Marcos)	672	1962
San Francisco La Unión	San Francisco La Unión	NA	1965
Santiago de Coatepeque	Coatepeque, Colomba, Génova	3,700	1970
Zunil	Zunil	216	1962
Shampelita	<u>Retalhuleu</u> San Filipe	NA	1975
Adelante	<u>San Marcos</u> Ayutla, Ocos, Pajapita, Catarina	3,300	1969
Maria Auxiliadora	El Quetzal, La Reforma, San Cristóbal Cucho	826	1968
Movimiento Campesino	Tejutla, Tacaná, San José Ojetenán, Sibinal, Comitancillo, Concepción Tutuapa	2,497	1973
Flor de Pascua	<u>Santa Rosa</u> San Rafael las Flores, Casillas (Santa Rosa), Mataguescuintla (Jalapa)	NA	1976
Tonantel	Nueva Santa Rosa	NA	1976
La Union	<u>Sololá</u> Sololá	NA	1965
Santa Clara	Santa Clara la Laguna	NA	1968
Santa Lucía	Santa Lucía Utatlán	1,200	1965
Diez de Septiembre	<u>Suchitepequez</u> Mazatenango, Chicacao, Patulul, Yunilito	2,137	1969
La Florida	Santo Tomás la Unión	586	1968

Buenabaj	<u>Totonicapán</u> Momostenango	161	1965
El Triunfo	San Cristobal	180	1963
España Chiquita	Momostenango	NA	1968
Maya Momosteca	Momostenango	248	1966
San Miguel Chuime- quená	Totonicapán	1,310	1966
Unión Francisquense	San Francisco El Alto	252	1970
San Miguel Gualán	<u>Zacapa</u> Gualán, Los Amates, Sansare	2,442	1966
La Paz	La Unión	1,044	1965
Teculután	Teculután, Usumatlán	NA	1975

APPENDIX B

FECOAR REGIONAL AGRICULTURAL COOPERATIVES

Cooperative	Municipio	Members	Year
Flor Chimalteca	San Martín Jilotepeque, San José Poaquil, Comalapa, Zaragoza, Chimaltenango, Paramos, Acatenango, Patzicía, Tecpán Guatemala, Santa Apolonía, Santa Cruz Balanyá, San Andres Itzapa, El Tejar (Chimaltenango Dept.) Antigua, Jocotenango, Pastores, Sumpango, Santo Domingo Xenacoj, Santiago Sacatepequez, San Bartolomé Milpas Altas, San Lucas Sacatepequez, Santa Lucía Milpas Altas, Magdalena Milpas Altas, Santa Maria de Jesús, Ciudad Vieja, San Miguel Dueñas, San Antonio Aguas Calientes, Santa Catarina Barahona (Sacatepequez Dept)	2,664	1971
San Andres Semetabaj	San Andres Semetabaj, Sololá, San Antonio Palopó, San José Chacaya, Santa Maria Visitacion, Santa Lucia Utatlán, Nahualá, Santa Clara la Laguna, San Pablo la Laguna, Santa Cruz la Laguna, Concepcion, Panajachel, Santa Catarina Palopo (Sololá Dept.) Tecpán Guatemala, Patzún, Acatenango (Chimaltenango Dept.) Chichicastenango (El Quiché Dept.)	1,631	1971
El 12 de Octubre	Quezaltenango, Cajolá, San Miguel Siguilá, Ostuncalco, San Martín Sacatepequez, Cantel, La Esperanza, Olin-tepeque, Huitan, Sibilia, Palestina de los Altos, San Francisco la Union, Cabrican (Quezaltenango Dept.)	828	1974

Totonicapán
(Totonicapán Dept.)

Justo Rufino Barrios	San Marcos, Esquipulas Palo Gordo, San Pedro Sacatepéquez, San Antonio Sacatepequez, Rio Blanco, San Lorenzo, Tejutla, Ixchiguán, Tacána, Sipacapa, Comitancillo, Concepción Tutuapa, San Miguel Ixtahuacán (San Marcos Dept.)	2,640	1972
Rey Quiché	Santa Cruz del Quiché, Chiché, Chichicastenango, San Pedro Jocopilas, Chinique, San Antonio Plotenango, Joyabaj, Patzité, Zacualpa, Cunén, Sacapulas, San Bartolomé Jocotenango (El Quiché Dept.)	2,640	1973
Cuna del Sol	Jutiapa, El Progreso, Santa Catarina Mita, Asuncion Mita, Yupiltepeque, Atescatempa, Jerez, El Adelanto, Zapotitlán, Comapa, Jalpatagua, Moyuta, Quesada (Jutiapa Dept.)	1,146	1974
	Chiquimulilla, Casillas (Santa Rosa Dept.)		

APPENDIX C

FENACOAG AGRICULTURAL COOPERATIVES

Cooperative	Municipio	Function	Members	Year
Los Pinos	<u>Alta Verapaz</u> Panzós	Corn	35	1970
El Valle de San Jerónimo	<u>Baja Verapaz</u> San Jerónimo	Vegetables	20	1975
Ruc Ux Paquixic	<u>Chimaltenango</u> Comalapa	Wheat	25	1969
Centro Campesino	<u>Chiquimula</u> Camotán	Agriculture	34	1973
Cerritos	<u>El Progreso</u> Sansare	Yuca	116	1965
Agrícola Cunén	<u>El Quiché</u> Cunén	Wheat	20	1966
Aliza Nueva Concepcion	<u>Escuintla</u> Nueva Concepción	Corn	50	1966
Arizona	Puerto de San José	Platano	26	1969
Coopesmar	Puerto de San José	Fish	27	1967
La Concordia	Nueva Concepción	Corn	20	1966
Los Amigos del Campo	Nueva Concepción	Corn	5	1964
Los Angeles	Puerto de San José	Milk	39	1963
Santa Isabel	Puerto de San José	Cattle	30	1962
Mater el Magistra	<u>Guatemala</u> San Pedro Ayampuc	Corn	30	1967
Nueva Vida	San Juan Sacatepequez	Flowers	19	1970
Cuilco	<u>Huehuetenango</u> Cuilco	Corn	123	1967
La Asunción Aguacatán	Aguacatán	Vegetables	35	1968
Nueva Esperanza	San Sebastian Huehuetenango	Corn	63	1966
Rio Azul	Jacaltenango	Coffee	247	1968
San Ildefonso	Ixtahuacan	Corn	72	1967

	<u>Izabal</u>			
Chichipate	El Estor	Corn	22	1976
Las Delicias	Puerto Barrios	Pineapple	25	1970
San Felipe de Lara	Livingston	Rice	71	1967
	<u>Petén</u>			
Apicultores de Petén	Flores	Honey	30	1968
Bella Guatemala	La Libertad	Corn	24	1976
Bethel	Sayaxché	Corn	58	1967
El Arbolito	Sayaxché	Corn	47	1968
El Consuelo	Dolores	Corn	25	1970
Flor de la Esperanza	La Libertad	Corn	31	1969
Ixmucané	La Libertad	Corn	41	1967
La Amistad	Dolores	Corn	34	1970
La Felicidad	Sayaxché	Corn	33	1966
La Lucha	La Libertad	Corn	31	1976
La Palma	Sayaxché	Corn	83	1969
La Perseverancia	Sayaxché	Corn	20	1967
Las Flores	Santa Ana	Corn	27	1970
Los Laureles	La Libertad	Corn	43	1970
Los Pipiles	Sayaxché	Corn	16	1966
Machaquilá	San Luis	Wood	28	1969
Manos Unidas	Sayaxché	Corn	49	1967
Mario Mendez	Sayaxché	Corn	59	1967
Montenegro				
Monte de Sinaí	La Libertad	Corn	25	1967
	<u>Quezaltenango</u>			
Santiago Cabrican	Cabricán	Wheat	50	1962
Trigueros de Sibia	Sibia	Wheat	43	1966
Zunil	Zunil	Vegetables	26	1968
	<u>Retalhuleu</u>			
Santiago Agricola	Champerico	Cotton	32	1965
El Xab	El Asintal	Corn	48	1976
	<u>Sacatepequez</u>			
Eterna Primavera	Santa Maria de Jesus	Corn	23	1971
El Nuevo Sembrador	Santa Maria de Jesus	Corn	21	1973
	<u>San Marcos</u>			
Comitancillo	Comitancillo	Wheat	21	1970
El Paraiso	Tejutla	Wheat	17	1968
El Tumbador	El Tumbador	Coffee	32	1966
Grano de Oro	Catarina	Coffee	24	1968
La Union	Ocos	Platano	28	1965
La Tejutleca	Tejutla	Wheat	60	1967
Siete de Mayo	Río Blanco	Corn	26	1976

	<u>Santa Rosa</u>			
Agua Blanca	<u>Santa Cruz Naranjo</u>	Corn	30	1975
El Hawai	Chiquimulilla	Fish	26	1971
Las Lisas	Chiquimulilla	Fish	29	1974
	<u>Sololá</u>			
Pasacul	<u>Nahualá</u>	Coffee	84	1966
Pixabaj	Sololá	Wheat	75	1968
San Juan de Argueta	Sololá	Wheat	161	1966
Santa Lucia	Santa Lucía Utatlan	Wheat	1,200	1963
Xocomil	Santiago Atitlan	Corn	64	1966
	<u>Suchitepéquez</u>			
La Unidad	<u>San Antonio Suchitepé-</u> <u>quez</u>	Sugar Cane	50	1967
	<u>Totonicapán</u>			
Cuarenta y Ocho	<u>Totonicapán</u>	Wheat	NA	1976
La Espiga	Totonicapán	Wheat	60	1971
San Rafael	Totonicapán	Wheat	69	1970
	<u>Zacapa</u>			
El Rosario	Rio Hondo	Vegetables	32	1970
Gualán	Gualán	Vegetables	275	1968
La Fragua	Zacapa	Vegetables	30	1970
La Unión	La Unión	Coffee	712	1965
Motagua	Cabañas	Vegetables	54	1968

INACTIVE FENACOAG AGRICULTURAL COOPERATIVES

	<u>Chimaltenango</u>			
Santa Ana	<u>Chimaltenango</u>	Wheat	--	1965
	<u>Peten</u>			
Canaan	<u>Sayaxché</u>	Corn	--	1966
La Buen Fé	Sayaxché	Corn	--	1967
	<u>Retalhuleu</u>			
El Buen Samaritano	<u>San Felipe</u>	Agriculture	--	1971

APPENDIX D

NON-AFFILIATED COOPERATIVES

Cooperative	Municipio	Function	Members	Year
<u>Alta Verapaz</u>				
Aquil	San Cristobal	Coffee	85	1974
Cahaboncito	Panzós	Corn	27	1969
Canillá	Cobán	Corn	32	1975
Cardamomeros de Alta Verapaz	Cobán	Cardamo	20	1968
Cobán	Cobán	Cardamo	42	1971
Chimolón	Tamahú	Coffee	77	1968
Ixcapaps	San Pedro Carchá	Corn	75	1971
Lomas del Norte	Cobán	Corn	41	1976
Moxán	Cobán	Corn	20	1975
Río Negro	Cobán	Cardamo	51	1971
Valparaiso	Santa Cruz Verapaz	Vegetables	20	1975
<u>Chimaltenango</u>				
Acatenango	Acatenango	Coffee	119	1967
Barrio el Guitón	San Martin Jilotepeque	Corn	17	1970
Cienaga Grande	Chimaltenango	Potatoes	22	1964
El Agro	Patzún	Wheat	91	1965
El Esfuerzo	Santa Cruz Balanyá	Wheat	10	1964
El Pensativo	Acatenango	Coffee	40	1970
El Progreso	Tecpán Guatemala	Wheat	89	1965
Hacienda María	San José Poaquil	Wheat	71	1966
Iximché	Tecpán Guatemala	Wheat	16	1965
La Colmena	Tecpán Guatemala	Corn	15	1965
La Esmeralda	Comalapa	Corn	16	1967
Los Mayas	Patzicía	Potatoes	18	1964
Nimá Chumil	Patzún	Corn	63	1967
Pedro de Bethancourt	Chimaltenango	Corn	32	1973
Ruc Ux Paquixic	Comalapa	Wheat	25	1969
San Juan Comalapa	Comalapa	Potatoes	24	1960
San Martin	San Martin Jilotepeque	Corn	60	1969
San Pedrana	Yepocapa	Coffee	100	1967
Sumatan	Yepocapa	Corn	25	1976
Tres Aldeas	San José Poaquil	Corn	15	1967
Unión Fuerza	Tecpán Guatemala	Wheat	35	1968
<u>Chiquimula</u>				
Adelante Chanmagua	Esquipulas	Corn	20	1976
Chiquimula	Chiquimula	Vegetables	47	1969
San Pedro	Camotán	Vegetables	22	1965

	<u>El Quiche</u>		
El Mash	Chichicastenango	Corn	10 1968
La Resurrección	Chajul	Corn	22 1976
San Isidor Labrador	Santa Cruz del Quiché	Corn	100 1964
Tunajá	Joyabaj	Corn	25 1976
Xalbal	Chajul	Corn	22 1976
Zona Reyna	Uspantán	Corn	115 1976
	<u>Escuintla</u>		
Ceiba	Palín	Coffee	106 1966
David Snyder	San Vicente	Coffee	59 1965
Los Chatos	La Gomera	Cattle	10 1967
	<u>Guatemala</u>		
Cayaec	Guatemala	Corn	25 1976
Central de Lecheros	San Jose Pinula	Milk	37 1968
Clan	Guatemala	Corn	34 1975
Comaya	Guatemala	Corn	25 1975
Libertad Canalena	Villa Canales	Coffee	32 1968
Promoción 45 E. P.	Guatemala	Corn	15 1976
	<u>Huehuetenango</u>		
Aqua Dulce	Cuilco	Coffee	32 1973
Buenos Aries	Chiantla	Coffee	172 1973
Cambalán	Barillas	Coffee	36 1969
Candelaria	Chiantla	Agriculture	28 1967
Choizunil	Santa Eulalia	Coffee	20 1973
El Todo Santero	Barillas	Cardamo	32 1973
Hoja Blanca	Cuilco	Coffee	76 1970
Ixcán Grande	Barillas	Cardamo	468 1970
Joya Hermosa	Aquatán	Wheat	100 1974
Kaibil Balán	Chiantla	Corn	83 1969
La Virgen	Santiago Chimaltenango	Coffee	23 1975
Luz de los Altos	Chiantla	Vegetables	40 1968
Malín	Barillas	Agriculture	24 1965
Mequel	San Miguel Acatán	Agriculture	46 1967
Nuestro Futuro	La Democracia	Coffee	135 1969
P. Quinn	Chiantla	Coffee	18 1976
San Antonio	San Antonio Huista	Coffee	699 1966
San José El Obrero	La Libertad	Coffee	159 1964
San Juan Ixcoy	San Juan Ixcoy	Lumber	23 1976
San Mateo	San Mateo Ixtatan	Wheat	22 1964
San Pedro Necta	San Pedro Necta	Coffee	400 1965
Santa Cruz Yalmox	Barillas	Coffee	25 1973
Tojumuco	Chiantla	Coffee	171 1970

	<u>Izabal</u>			
Atlántida	Puerto Barrios	Rice	15	1976
Chichipate	El Estor	Corn	22	1976
Chocón	Livingston	Corn	22	1970
Emaus	Livingston	Corn	17	1970
Sartun	Livingston	Rice	35	1967
	<u>Jalapa</u>			
El Arado	San Carlos	Wheat	16	1966
La Corona	Jalapa	Corn	20	1976
Las Brisas	Mataquescuintla	Coffee	143	1967
	<u>Jutiapa</u>			
San Juan Bautista	Moyuta	Coffee	79	1968
	<u>Peten</u>			
Cancuén	San Luis	Cattle	18	1971
Caoba	San Luis	Corn	22	1976
El Manantial	Poptún	Corn	17	1972
Guayacán	Santa Elena	Cattle	30	1968
La Competidora	Flores	Cattle	19	1966
La Gaza del Rio de la Pasión	Sayaxche	Corn	20	1967
Los Cenotes	Flores	Chicle	20	1973
Paz y Progreso	Santa Elena	Corn	33	1976
Rayos de Esperanza	San Francisco	Corn	32	1976
Tierra Virgen	San Luis	Corn	20	1976
	<u>Quezaltenango</u>			
Chiquirichapa	Concepción Chiquirichapa	Corn	25	1967
El Cielito	San Carlos Sija	Wheat	24	1971
El Reposo	Génova	Cattle	120	1964
La Guadalupana	Ostuncalco	Vegetables	16	1975
La Llave de Almdonga	Almolonga	Vegetables	24	1974
Los Manzanales	Huitan	Wheat	17	1966
Morazán	Génova	Coffee	20	1969
San Carlos	San Carlos Sija	Wheat	87	1964
Taltut	Génova	Coffee	110	1966
Tesoro del Pueblo	San Francisco La Union	Corn	28	1969
Trigueros de Olintepeque	Olintepeque	Wheat	20	1959
Tuichipech	Concepción Chiquirichapa	Potatoes	20	1971
Xelac	Quezaltenango	Cattle	21	1975
Xelajú	Quezaltenango	Wheat	20	1966

	<u>Retalhuleu</u>			
Champerico	<u>Champerico</u>	Fish	23	1976
El Asintal	El Asintal	Coffee	105	1966
Triunfo	San Sebastian	Coffee	30	1969
Union Campesina	Champerico	Corn	20	1975
Xolhuitz	Nuevo San Carlos	Coffee	21	1974
	<u>Sacatepequez</u>			
La San Juanerita	Alotenango	Coffee	81	1968
Monja Blanca	Sumpango	Corn	29	1966
Santiago de los Caballeros	Santiago Sacatepequez	Vegetables	69	1966
	<u>San Marcos</u>			
Cabén	San Pedro Sacatepequez	Wheat	25	1968
La Curbina	Ocós	Fish	12	1970
La Florida	San Pablo	Coffee	100	1967
La Fronteriza	Malacatán	Coffee	150	1973
La Reforma	La Reforma	Coffee	48	1967
Nuevo Progreso	Nueva Progreso	Coffee	206	1964
San Luis Malacatán	Malacatán	Corn	40	1973
San Pablo	San Pablo	Coffee	61	1965
Siete de Mayo	Río Blanco	Corn	26	1976
	<u>Santa Rosa</u>			
El Junquillo	Barbarena	Coffee	22	1973
El Naranjo	Santa Cruz Naranjo	Coffee	88	1969
La Abundancia	Nueva Santa Rosa	Coffee	26	1968
La Chiapaneca	Santa Rosa	Potatoes	32	1968
Oratorio	Oratorio	Coffee	38	1976
Renacimiento	Nueva Santa Rosa	Coffee	32	1969
Rinconaña	Santa Rosa de Lima	Potatoes	20	1968
Santa Cruz Chiquimulilla	Santa Cruz Chiquimulilla	Rice	60	1960
	<u>Solola</u>			
Gobernador Tzoc	Nahualá	Wheat	25	1968
La Chaquijyaqueña	Sololá	Wheat	30	1968
Nahuala	Nahualá	Coffee	74	1965
Nuestra Señora de las Mercedes	Sololá	Corn	20	1975
Nueva Estrella	Nahualá	Coffee	82	1973
San José	Santa Catarina	Corn	28	1965
San Lucas Toliman	San Lucas Toliman	Coffee	74	1964
Santa Catarina	Santa Catarina	Coffee	32	1965
Tzutuhilepop	Santiago Atitlan	Corn	15	1972
Tzutuúiles	Nahualá	Coffee	23	1973

	<u>Suchitepequez</u>			
Agricultores de San Julian	Patulul	Corn	25	1971
Chocolá	San Pablo Jocopilas	Corn	39	1976
Madre Vieja	Patulul	Sugar Cane	20	1975
Siempre Adelante	Cuyotenango	Corn	380	1960
	<u>Totonicapán</u>			
Buenabaj	Momostenango	Corn	43	1976
Cojxac	Totonicapan	Agriculture	32	1967
Chiguán	Santa Lucia La Reforma	Corn	28	1976
Choanoj	Totonicapán	Wheat	19	1968
El Porvenir	Totonicapán	Wheat	37	1969
La Religiosa	San Andrés	Wheat	33	1969
Chuimekena	Totonicapan	Agriculture	37	1964

APPENDIX E

INACTIVE COOPERATIVES

Cooperative	Municipio	Function	Year
	<u>Alta Verapaz</u>		
Caj Coj	San Cristobal	Sugar cane	1968
Chamil	San Juan Chamelco	Maguey	1969
Chiquin Guax Cux	Tamahú	Coffee	1968
Comón Cruceña	Santa Cruz Verapaz	Hogs	1969
Maxaxen	Cahabón	Corn	1967
San Juan Chamelco	San Juan Chamelco	Hogs	1965
	<u>Baja Verapaz</u>		
Tezulutlán	Salamá	Cattle	1973
	<u>Chimaltenango</u>		
Alianza Parramos	Parramos	Corn	1965
Colonia Joya Grande	Zaragoza	Potatoes	1965
Conejera Chimalteca	Chimaltenango	Rabbits	1965
El Potosí y Anexos	Pochuta	Coffee	1967
La Esperanza	Santa Cruz Balanya	Agriculture	1965
La Estrella	Chimaltenango	Corn	1967
Nojel Chijún	San José Poaquil	Corn	1966
San Vicente	Patzicía	Wheat	1966
	<u>Chiquimula</u>		
Olopa	Olopa	Coffee	1969
	<u>El Progreso</u>		
Guastatoyana	El Progreso	Corn	1967
San Vicente de Paúl	El Jicaro	Vegetables	1966
	<u>El Quiche</u>		
Pachilip	Joyabaj	Corn	1968
	<u>Escuintla</u>		
Agropecuaria de Cuyuta	Masagua	Cattle	1965
Algodonera Cuyuta	Masagua	Cotton	1965
Del Sur	Escuintla	Corn	1967
El Cajón	Santa Lucia	Sugar cane	1959
El Corozo	Nueva Concepción	Corn	1966
Esmeralda	Masagua	Corn	1961
La Prosperidad	Santa Lucia	Sugar cane	1965
San Andrés Oruna	San Andrés	Coffee	1967

	<u>Guatemala</u>		
Bartolomé de las Casas	Guatemala	Cattle	1960
Carnefina	Guatemala	Hogs	1969
Cavina	Villa Nueva	Honey	1965
Centro Americana A	Guatemala	Corn	1960
Centro Americana B	Guatemala	Fruit	1965
Floragro	Guatemala	Flowers	1970
Floricultores Valle de Guatemala	Guatemala	Flowers	1967
La Chapina	Guatemala	Honey	1969
Matías de Galvez	Guatemala	Corn	1960
Polochic	Guatemala	Corn	1967
San José Palencia	Palencia	Corn	1960
Santa Rosa	Guatemala	Vegetables	1960
Tecumán	Guatemala	Cattle	1960
Técnica Agrop. Petén	Guatemala	Cattle	1963
Lecheros Santa Elena Barillas	Villa Canales	Milk	1961
Las Nubes	San José Pinula	Corn	1966
Or Mariano Galvez	Guatemala	Corn	1960
	<u>Huehuetenango</u>		
El Trebol	Chiantla	Corn	1969
Espiritu Santo	Huehuetenango	Agriculture	1967
Los Cuchumatanes	Chiantla	Vegetables	1960
San Bartólo	Chiantla	Vegetables	1968
San Dionicio	Santa Eulalia	Corn	1964
	<u>Izabal</u>		
Bananeros de Norte	Morales	Bananas	1967
Cayaguense	Morales	Rice	1967
Ceres	Morales	Bananas	1968
Cumbre del Eden	Izabal	Corn	1967
Champona	Morales	Rice	1967
Del Atlántico	Puerto Barrios	Corn	1966
El Caribe	Puerto Barrios	Fish	1970
El Golfito	Livingston	Rice	1967
El Refugio	Morales	Cattle	1971
El Riachuelo	Morales	Rice	1968
Ganaderos de los Amates	Los Amates	Cattle	1969
Ganaderos Sagrado Corazón de Jesús	Morales	Cattle	1961
Hulera de Navajoa	Morales	Rubber	1959
Izabal	Morales	Citrus fruits	1969

John F. Kennedy	Livingston	Rice	1964
Los Andes	Puerto Barrios	Platano	1968
Nuevo Livingston	Livingston	Fish	1965
San Francisco	Morales	Rice	1967
Santa Ines	Los Amates	Cattle	1964
Vergel	Morales	Rice	1969
York	Morales	Rice	1968
	<u>Jalapa</u>		
Cotagua	Monjas	Tobacco	1968
	<u>Jutiapa</u>		
Lecheros de Asunción Mita	Asunción Mita	Milk	1959
Quezada	Quesada	Tobacco	1967
Valle de Retana	El Progreso	Rice	1968
	<u>Peten</u>		
Bonanza	Sayaxché	Corn	1967
La Favorita	Sayaxché	Cattle	1966
La Laguna	Sayaxché	Corn	1967
Peten Itzá	Flores	Cattle	1970
Piedras Negras	Sayaxché	Corn	1967
Rancho Alegre	La Libertad	Corn	1966
San Benito Petén	San Benito	Fruits	1963
Trabajo y Progreso	Sayaxché	Corn	1967
Usumacinta	Sayaxché	Corn	1967
	<u>Quezaltenango</u>		
Coatepeque	Coatepeque	Corn	1967
Choquí	Quezaltenango	Wheat	1965
El Adelanto	Quezaltenango	Corn	1962
Los Altos	Quezaltenango	Fruit	1971
Pensamiento Palmira	Colomba	Coffee	1962
Trigueros de Cantel	Cantel	Wheat	1960
	<u>Retalhuleu</u>		
Azucarera Retalteca	Retalhuleu	Sugar cane	1968
Guatemalteca Agro Industrial	San Andrés	Corn	1967
San Francisco Pecul	San Felipe	Sugar cane	1960
	<u>Sacatepequez</u>		
Antigua	Antigua	Corn	1967
Unión San Luguense	San Lucas	Corn	1973

	<u>San Marcos</u>		
Chamac Champollap	San Pedro Sacatepequez	Agriculture	1964
La Floresta	El Quetzal	Coffee	1969
Tuililen	Comitancillo	Wheat	1968
	<u>Sololá</u>		
San Pedro La Laguna	San Pedro	Agriculture	1964
Sololateca Industrial	Sololá	Agriculture	1960
	<u>Suchitepequez</u>		
Guatalón Santa Elena	Río Brávo	Sugar cane	1967
La Antorcha	San Antonio	Coffee	1969
San Jose el Idolo	San José	Rice	1965
Santa Elena Guatalón	Río Bravó	Sugar cane	1961
Suchitepequez	San Antonio	Cacao	1966
	<u>Totonicapán</u>		
Atanacio Tzul	Totonicapán	Wheat	1967
Palemora	San Andrés	Wheat	1965
Santiago Momosten- ango	Momostenango	Agriculture	1963
	<u>Zacapa</u>		
Estanzuela	Estanzuela	Vegetables	1972
Regional de Oriente "CARSVO"	Teculután	Vegetables	1965

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